Prepayed —
Rattisons &c

Region of Orbit
in Extremum of ∀
and long Born —
1st Ganglia &c
and — Immunoli
[illegible] Rachio Mast
[illegible] under head of the
[illegible] Cole. Spinalis
" Capitis — Cor
& Emiz Spinalis Dorsi
" " Colli
Rectus Capitis
"
"

2nd Page
[illegible]
[illegible]
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[illegible]

Styloid process
Stylo-Glossus — sub form relation to Surgical art —
Stylo-Hyoideus
Stylo-Pharyngeus —

Genio Hyoideus
Genio-Hyoglossus — and draw down to floor of mouth. protrude the tongue origin of musical or tongue tie —

Hyo Glossus —

Superficial fascia of head — or aponeurosis of head
Occipital — Muscle
Epicranius — muscle —

relieve cases of
crisis from intu

Bassorin
ale or stout

℞ Hydrarg: Sulphuretum Rubr 3ss
Serpent Virginianus 3j
Scrupus 7ss –

Urticaria Subcutanea – Urticaria
only occurs in persons who are habitually
constipated and who indulge freely
in the pleasures of the table
In constitutional Urticaria Sulphur
Solution – Nitrate of Silver the use
of it Simon

SYLLABUS

OF

THE COURSE OF LECTURES

ON THE

PRINCIPLES AND PRACTICE OF SURGERY,

DELIVERED IN THE

JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

BY THOMAS D. MÜTTER, M. D.

PHILADELPHIA:
J. H. JONES, PRINTER, NO. 34 CARTER'S ALLEY.
1848.

NOTE.

The classification adopted in my lectures differs materially from that of any other surgeon, and its utility has been fully tested for several years. It will be perceived that I arrange all the subjects comprised in the course under *six* heads:

1. Under the *first*, I include *Inflammation*, its products and varieties, and *Wounds*.

2. Under the *second*, I shall consider all the diseases of the different tissues and organs, commencing with the *Bones*, and concluding with the *Skin*.

3. Under the *third*, the various affections of *Regions* may be considered.

4. The *fourth* division comprehends all *Tumours*, whether malignant or non-malignant.

5. In the *fifth*, the Diseases peculiar to *Females* will be considered.

6. In the *sixth*, *Amputation*.

THOMAS D. MÜTTER.
244 *Walnut Street.*

Oct. 1, 1848.

Dunglison 1/2 8 to 10 AM
Houston 8 to 10 AM
Pancoast 7 1/2 to P M
Mitchell 7 1/2 P M
Mutter 7 1/2 P M
Meigs 9 to 10 AM & 8 to 10 P M
Bache 7 1/2 P M

Thomas S. Dunott
Jeff. College.

Philadelphia January 4 1852

Electricity. Certain bodies such as Sealing wax & glass amber & a hard the power of attracting light bodies and after contact taking position of repelling them this position is called electricity

J K Mitchell – named according to interval between the paroxysm – one day or very common ague – Tertian being most common – Quotidian more rare A quartan fever appear to have been hereditary – the chills may be displaced – one paroxysm may run into another – divided into 1 Chill fever and sweating stage very rare for chill to come 1st – fever congestion of brain pale skin in fever gangrene yes blood goes to brain &c – sweating more or less prolonged – Intermission stage may be very short in remittent all ways fever very easy of treatment – can alter consciousness of brain by Hy Drag: can not be certain the next paroxysm may not be a congestive one never permit the patient to pass even death out giving some the great med are Quin – then Assent prep – and the Mineral & beg strong the vit most generally suffice

best is to give medicine once a day near the time when it is to occur give during intermission. and rapidly increase dose during the fit. always give sufficient quantity. Stomach more disturbed by small doses than large and the latter more the stronger imp. The fever owes intensity to imp of malarious effect. Some of our southern state Rich by large doses. Some intr are so sensitive that quinine has kept from it often dose given large doses. Just like Hydr Chlor Mit large doses produce full effect large doses do no more. when

℞ Quin Sulp - gr. XV
Coch Aqua - ℥ X
And Sulp gr. XV
S. Coch Por. v. very hour

all now ready to give small dose Quinia for 21 days there is an effect tendency to return every 7-14 days If don't take to 1 every day X or 15 every 5 days — Best by opt to disturb Stomach Unless patient live in Malarious district patient unaccustomed to it but almost always some bad poisonous symptoms — to stop recurring give X or 15 grs of quin sulp. Sometimes this will produce cramps or alcohol or at app of syncope — Sometimes must resort to some other preparation and use Ext Cinch Flav Sometimes bark remains on stomach when Quinia rejected — Best way is to take 1/2 ounce of bark in morning for three

pure irritability — and generally
a dose above XX grs ℞ if have
an anemic give Cit Iron & Strn
give X grs in Sopty be two grs
hours — Valerinate of Quinia has
also been used — in very atonic cases
might give stimulants & a very
popular remedy is
℞ ℞ ℥j and give
Sulph Mag ℞ ℥j one dram
Sodae Bic Carb ℥j water and
℥j other ½ hour
Rule in two parts before the
patient expected
patient where tendency to
apoplexy use extracts of Quinia
or tinctures of quinia — Most
to a person who it cures an
extra — very apt to cure permanently
generally use it in fevers of 3 or
days giving from 5 to 10 drops 3 or
4 times a day — or give one ~~dose~~
morphia hour — Another
popular acid of Arsenic not
to grs ss If stomach is weak
use by mouth — Starch and
opium by rect with quinia
for 2 yrs of age Salp quinia grs 5
by injection Opium grs
or opine or the Starch
ram —
Some give 20 grs calomel
will often give a cure, but it
will be necessary to continue

Iron has been much used now
Fleri phosphorus gr
act as tonic
when
combination
of other substances will do
in some cases cantharis very
useful in doses 15 gts opium
very just, attacks often
pain & to sleep given
now & then before
sometimes preparations
used - veratrum - only used
in Quartan given as a
~~medicine~~ emetic
now opinion — Bene
in chronic in dim
nervous pain - by bathing
bark of apple tree bitter
Comes Florida Oak
~~tree by in~~ make a
decoction use as much as
can bear, after cure very
liable to return on any
of exertion.

Sometimes good - use
lot of iron
and sulphur
very often

Best of paregoric in
violent cases great dis
of nervous system hand & foot
cramp - give some hot
tea inter - Sandpiper pid bark
harsh cases use opium to settle
nervous irritation common to
combine with stimulant

a tourniquet around thigh
tend up very hard around
the calf. can use blood
for irritation in general
not advisable if possible
would take away little blood
if congestion in any one organ
use cups or leeches — when
pain in back cup on back
where pain doesn't or apply
very hot applications —
pressure on spine with
fine pain in arms & legs
cup & leeches —

SYLLABUS OF LECTURES.

INFLAMMATION.

DEFINITION.

LIABILITY OF TISSUES TO UNDERGO INFLAMMATION.—Some more liable than others. Some never attacked. Certain of the lower order of animals are supposed to be exempt from this action. Not as yet positively ascertained.

DIVISION OR CLASSIFICATION. First.—1. Acute. 2. Chronic. 3. Latent.

Second.—1. Healthy. 2. Unhealthy.

Third.—1. Adhesive. 2. Œdematous. 3. Erysipelatous. 4. Gangrenous. 5, Specific. (Hunter's.)

Fourth.—1. Phlogosis. 2. Epiphlogosis. 3. Metaphlogosis. 4. Hyperphlogosis. (Lobstein's.)

SYMPTOMS.—1. Local. 2. Sympathetic, general, or constitutional.

(1.) *Redness*, *heat*, *swelling*, *pain*, *throbbing*, and an *alteration* or *suspension* of the natural secretions of the part. Although these symptoms are usually present, inflammation may exist without their development. Cite cases.

(1.) *Constitutional symptoms.*

THEORIES OF INFLAMMATION.

EFFECTS ON THE BLOOD.

TERMINATIONS OF INFLAMMATION.—1. Resolution. 2. Delitescence. 3. Metastasis.

EFFECTS OR PRODUCTS.—1. Effusion of serum. 2. Effusion of lymph. 3. Adhesion. 4. Hardening. 5. Softening. 6. Atrophy. 7. Hypertrophy. 8. Chemosis. 9. Suppuration. 10. Ulceration. 11. Gangrene and mortification.

CAUSES OF INFLAMMATION—TWO CLASSES. 1. Constitutional. 2. Local.

First Head, or *Constitutional.*—1. Plethora. 2. Local determinations. 3. Fever. 4. Diathesis. 5. Disordered state of function. 6. Suppression of natural discharges. 7. Atmospheric vicissitudes.

Second Head, or *Local.*—1. Those which produce *palpable injury to organization*—as mechanical injuries of every kind—mineral irritants—heat, friction, extreme cold, &c.

2. *Those which operate through the sentient extremities of the nerves*—as concussion, pressure, constriction, irritating substances, as mustard, cantharides, &c.

3. *Fluids which produce a peculiar impression and give rise to a specific action or inflammation*—as decomposed animal matter, pus or serum from specific diseases. The most familiar examples of the operation of this class are, *dissecting wounds*, *pustule maligne*, and *glanders.*

4. *Those which suddenly change the natural feelings of the parts.* For example, drawing off the water in dropsy will cause inflammation of the serous cavity in which it has been collected. Peritonitis frequently comes on after the delivery; cystitis after the operation for stone, &c.

Diagnosis.

Prognosis.

Treatment.—Numerous indications are presented, most of which require to be fulfilled in nearly every case. They are modified of course by the peculiarities of the attack, the age, and the strength of the patient, &c.

1. We must endeavor to remove the cause. An exception to this rule is occasionally met with in surgery, when bullets, &c. lodge deeply.

2. We must diminish the action of the heart by nauseants, digitalis, general and local abstraction of blood, by venesection, arteriotomy, scarification, cups, and leeches.

3. We must reduce the sensibility of the part, and if possible cause constriction of its vessels, by cold—ice, irrigation, immersion.

4. When cold fails to reduce sensibility, apply steam, fomentations, poultices, warm water dressings, immersion in warm water, &c.

5. We must restore the secretions, if possible, by diaphoretics, mercury, iodine, warm baths, &c.

6. We must remove the original disease by counter-irritation, especially when it becomes chronic. For this we use irritating lotions, blisters, sinapisms, tart. antim., croton oil, issues, seatons, and moxas.

7. When the vessels are turgid, we must cause their contraction by astringent lotions, aided by scarifications, leeches, &c.

8. We must also prevent the afflux of blood into the part by position, frictions, and rest. *Pressure*, recommended by some, is generally a painful remedy, except in chronic cases.

9. We must always bear in mind the influence of the mind upon the body, and endeavor to cheer up the patient by every possible means.

PRODUCTS OF INFLAMMATION.

I. SEROUS EFFUSION.

1. *Nature of this fluid.*
2. *Kind of inflammation usually producing it.*
3. *Time requisite for its separation.*
4. *Local phenomena.*
5. *Effects upon parts containing it and those in their vicinity.*
6. *Diagnosis.*—May be confounded with dropsy arising from other causes.
7. *Diseases produced by serous effusion.*—Hydrocephalus, hydrophthalmia, hydrocele of the neck, hydrothorax, hydropericardium, ascites, ovarian dropsy, œdema, anasarca, skin bind of children, hydrocele of the tunica vaginalis testis, hydrarthus.

Tracheotomy. Operation

In Oedema of Larynx don't scarify. Bister
covered with Muslin he Cotterqua down & carefully
in every direction. Gruel gut out of patient
saved. Antiphlogistics then

If compression fails = tracheotomy or laryngotomy,
Sub Hyoid Laryngotomy all called Bronchotomy

Trachea recedes 1 inch from top of Sternum ~~deep~~
Outline of throat. Skin covering throat thin & delicate
1. Skin & Sup. fascia. 2 Sl. Hyoid & Sl. Thyroid
Cut the middle line of these muscles. Enter between
Isthmus of Thyroid gland. 5 Thyroid flap. Pierce
& cut Isthmus & pleural avoid them if possible. Pulsation
& the middle Artery of Neither, going to Thyroid gland
7 Deep fascia of neck 8 Trachea.

In middle region. very simple Skin Sup. fascia & Cellular
& very few muscular fibres, no artery. gland is below it.

Vertical Dagger SK. Sup. fascia - Muscles then ligament or int. an
artery. this below middle & lower 3rd.

Upper part 3d - SK. Sup. fascia. muscles, ligaments to Cellular
then ligaments. no artery. There is Sub Hyoid area

Here divide Thyroid cartilage under something entangled in Vocal
chords. Sub Hyoid never performed on living. Want complete
artery. Sitting forward. Stones. Trachea tube. Not that of Thyroid
2 Hooks. Piece of tube. Direction. Carried forward. Deep. Head
& arms. Surgeon pinches up fold of skin & knife through it. Stop
then instead of cutting. tear tissues with forceps for fear of hemorrhage
pulsating artery. If it cut it get it ligated if have to open pleura
& cut artery. Middle artery. Never when [illegible]
blood is flowing. Put Tracheotomy in Hooks. Back of yoke thrust
forward. Voice is lost. I cut out piece of cartilage. all always
[illegible]

1.

4 operations generally performed on ~~neck~~ trachea include name. Often we are obliged to perform three oper
2 In order to be certain in our diagnosis we should use the gorged needle, unless the tumor pulsates, when it might be an Aneurism push the tumor to one side if over an artery as the pulsation may have been ~~the~~ caused by this. Generally is an elastic, smooth (on its external face) tumor very slightly reddened sometimes at others not, if the diagnosis proves it Hydrocele, puncture with trocar let out the fluid and apply pressure to the sac. Sometimes these measures fail and then use the seton (small one)
5. Paracentesis Articuli for Hydrop. Articuli. This is generally the result Chronic inflammation - known cause of increasing, elastic feel no ~~swelling~~ actual pain and uniform swelling, drain tap. as the introduction of air will act as a powerful irritant. use then constitutional remedies, and pressure. 6. Anasarca & Edema this is an infiltration of the cellular tissue with water and will sometimes produce enormous swelling, a puncture of the skin will often relieve the swelling but be very careful for fear ~~and~~ of gangrene following the puncture Make the Scarifications few in number and far apart.

in the term Bronchotomy though each has its own or trachea for the removal of foreign bodies or for œdema or anasarca of Pharynx. In making diagnosis we should also enable to find out what part of either of the passages it occupies. Now if we know that the foreign body has been swallowed during an inspiration, in all probability it has lodged in the ~~Thus~~ Trachea. In recent cases we can hear the body moving. Certain bodies cannot pass into the trachea as sandbur — If operate for extraction of Foreign body always perform the operation of Tracheotomy. If patient was eating at time of accident generally lodges in the Pharynx. 1st Assure p— no danger and by calming the mind you will lessen his convulsive struggles. If possible extract with Hinds Gullet forceps if this cant be done and the substance susceptible of it, push it down with probang or get it out if possible by means sewed at the end. Sometimes we use the probang with a skein of thread tied on one end, and draw out the body by entangling it in the threads. If great danger of suffocation open the Crico Thyroid space. If substance indigestible as button get it out or force down if this is impossible but if copper dont leave your patient until you have prepared him against the poisonous action of acetate of Copper which is formed by its union with the acids of stomach by ordering approprate diet. 4. Paracentesis Colli operation for Hydrocele of the neck. Diagnosis. A large tumor formed upon neck depending down

Effusion of Coagulable Lymph.

1. Though usually the result of acute yet sometimes chronic Inflam. will produce it 2. It may be thrown into a cavity glue together its walls. If in cellular tissue will form tumors or Elephantiasis. If in the white tissue may cause it to become opaque, as in cornea making corneal speck. 6. How is it that this plasma forms hard or soft tissue, 1st the stuff a creamy fluid slightly yellow and very tenacious, is compound of serum and globules. 2 Wase of devel. The plasma is thrown into microscopical fibres is then fibrination. 3. Have throwing themselves, the nucleated cell, synonome Exudation Corpuscles organic cells. 4. In various parts have blood vessels ramifying known by numerous red points appearing in mass, which are sin genies or ramifications of neighboring vessels, then follow nerves absorb be necessary for the mature organization. Suppose the cells fail to reach maturity what becomes of them they die the partially ~~softened~~ cruted. tissue breaks down and we have pus. 1 Fibrous Lymph have adhesion Corpuscular Elements. no adhesion. Mixed. ~~that~~ he is about fair. Croup membrane is coagulated

III

III Adhesion We will pass over since we have so many ways of illustrating it

Elephantiasis is Dr. Inflt. of cellular tissue [illegible]

8. *Operations required to relieve these affections.*

(1.) Paracentesis capitis, in hydrocephalus.

(2.) Paracentesis oculi, in hydrophthalmia.

(3.) Tracheotomy, in œdema of the glottis.

(4.) Paracentesis colli, in hydrocele of the neck.

(5.) Paracentesis thoracis, in hydrothorax and hydropericardium.

(6.) Paracentesis abdominis, in ascites and ovarian dropsy.

(7.) Paracentesis scroti, in hydrocele of the tunica vaginalis testis.

(8.) Paracentesis articuli, in hydrarthus.

(9.) Puncture of the skin, in œdema and anasarca. Punctures let off water [illegible]

II. EFFUSION OF COAGULABLE LYMPH.

1. *Nature of this fluid.* 3 Kinds according to circumstances what are they

2. *Kind of inflammation producing its separation.*—Must not be too high or we have pus; nor must it be of too low a grade. There is evidently a secreting point.

3. *Time required for its formation.* Hunter found in 33 minutes, [illegible]

4. *Tissues in which it is most liable to occur.* 3 Kinds.

5. *Effects upon the part into or upon which it is thrown.*

6. *Stages through which the lymph passes in its organization.*

7. *Diseases resulting from this effusion.*—Hepatization of the lung; corneal speck; various tumours; the hardness about boils and erysipelas; elephantiasis; closure of the trachea in croup; strictures; adhesions; and strangulations.

8. *Operations required to relieve the effects.*—Extirpation of various tumours; amputation of a limb; tracheotomy or bronchotomy in croup; the different operations for strictures; separation of adhesions as in atresia vaginæ; operation for hernia.

III. ADHESION.

Definition.—The accidental or abnormal union of parts, either separated naturally or by some chance, from each other.

Nature of this process.—This product of inflammation, or according to some, of *irritation*, is nothing more than the effusion of coagulable lymph or plasma, under peculiar circumstances. When, for instance, a simple cut or wound unites, without suppuration, the bond of union is either pure coagulable lymph or the fibrine of the blood; and it is said to heal by *adhesion*, or by "*adhesive inflammation*," or the "*first intention of Hunter*." Professor M'Cartney calls this process "mediate union by lymph," and denies the existence of inflammation in its accomplishment.

Theories in relation to this process.—Hunter's; Thomson's; John Bell's; Maunoir's; Delpech's; Serre's; Duhamel's; those of the Physiological school, &c.

Changes which take place during the organization of the bond of union.—1, Coagulation; 2, change in color; 3, formation of vessels; 4, increase of firmness; 5, conversion into fibrous or cellular tissue.

Process of vascularization.—Theories of Hunter, Duhamel, Clanny, Sir E. Home, Gendrin, Laennec, &c.

Appearance of cicatrix.

Utility of this process.—Exhibited in the adhesion of wounds. The attachment of the lungs to the ribs in pleurisy. The cure of hydroceles, cysts, and fistulæ. The cure of wounds about the abdomen. The arrestation of hemorrhages. The restoration of parts entirely separated from the body. And the success of *plastic* surgery.

PLASTIC SURGERY.

Definition.

Synonymes.—Autoplastic surgery; anaplastic surgery; animal grafting; chirurgia curtorum per insitionem; morioplasty; heteroplasty; taliacotian operation, &c.

History.

Indications for the employment of plastic surgery.

Circumstances which favor the success of the operation.

Circumstances which forbid its employment.

Result of these operations.—1. Favorable. 2. Unfavorable.

Treatment after a plastic operation.

Classification.—Several general groups. 1. Operation intended to restore parts either *entirely* or *partially* separated from their original connection.

2. Operations intended to restore lost organs by a process similar to vegetable grafting, and hence called the "*operation by transplantation.*" The new flap is here entirely detached from its original position.

3. The operation by "*transposition;*" the flap is here left attached by a pedicle, and is taken from parts either in the *vicinity* or at some *distance* from the seat of disease.

Under each of these *general* heads are ranged the different *special methods* of performing the different plastic operations. Under the first, we have the operation after *cancer*, the *removal of cicatrices*, the *loss of fingers*, &c. Under the second, the operations by "*migration of the flap,*" "*detachment* and *migration,*" &c. Under the third, the operations by "*glissement du lambeau*, or *sliding the flap,*" "*Roulement*, or *rolling the flap,*" "*inversion of the flap,*" &c. &c.

PLASTIC OPERATIONS.

Each of these takes its name from the part to be restored.

1. Cranioplasty, or restoration of the soft parts and bones of the head.
2. Otoplasty, or restoration of the ear.
3. Rhinoplasty, or restoration of the nose.
4. Blepheroplasty, or restoration of the lids.
5. Keratoplasty, or restoration of the cornea.
6. Cheiloplasty, or restoration of the lips.
7. Genioplasty, or restoration of the cheeks.
8. Staphyloplasty, or closure of the soft palate.
9. Palatoplasty, or closure of the palatine vault.
10. Bronchoplasty, or closure of the larynx or trachea.
11. Urethroplasty, or restoration of the urethra.
12. Oscheoplasty, or restoration of the scrotum.
13. Cystoplasty, or restoration of the bladder.
14. Enteroplasty, or restoration of a bowel.
15. Elytroplasty, or restoration of the vagina in vesico-vaginal, or recto-vaginal fistula.
16. Plastic operations for the restoration of parts about the thorax and abdomen.
17. Plastic operations after the removal of cicatrices.
18. Plastic operation for the cure of hernia.

Lymph. cells degenerate & become horny cells
Also into fat cells, Corpuscular, lymph
degenerate into fat cell Envelope of which has
nuclei are fat. Another Calcareous cell,
Also into Pigmental cells. Pus cell

IV Hardening Owing to deposition of plasma as in Schirrus. V Softening, as in chronic inflam- of brain, in the heart. VI. Atrophy generally the result of Metastasis, As in Mumps. The swelling leaving parotid gland and being transferred to Testicles, Here the indication is to bring the disease back to original seat, and if we can't accomplish this we must fear very much the beginning of Atrophy. Have it also in brain in bone Kidney lungs. VII. Hypertrophy Sometimes occur in most vital organs, no one can tell the result here. VIII. Chemosis. Excessive deposit of blood in a tissue making thicker rupturing vessels, presenting to eye a hard shining and lamellated appearance. It is always destroy the part if Surgeons don't use most active Antiphlogistic Means

[illegible] produced by [illegible] by impairing vitality of part.

IV. HARDENING.

Definition.

Causes.—Besides inflammation, it may result from natural causes, or it may be produced by simple congestion; undue accumulation in the cavities of organs; hypertrophy; loss of the fluids of an organ; interstitial deposits, and the presence of unorganized masses, as *tubercles*, &c.

Manner in which inflammation produces hardening. Effusion of Plasma

Tissues liable.

Effect on organs.

Treatment.

V. SOFTENING, OR RAMOLLISSEMENT. - Softening

Definition.

Causes.—Usually from inflammation. May result from defective nutrition; disease of arteries; want of proper food; altered qualities of the blood, &c.; the solvent qualities of the gastric juice.

Tissues liable to it. Mucous membranes, chronic Bright

Effects on organs.

Treatment.

VI. ATROPHY.

Definition. Wasting

Causes.—Besides inflammation, it may result from *a law of nature*, as in *the wasting of the thymus gland;* an arrest of the nutritive process before birth; from a state of inaction; loss of nervous power; pressure; diseases of various kinds.

Division.—Partial and general.

Effect on bulk of organs.—May exist without any positive loss of size, as in eccentric atrophy of the heart, &c.

Effect on function of organs.

Tissues most liable to be attacked.

Treatment.

VII. HYPERTROPHY.

Definition.

Causes.—More active nutrition in a part, dependent often on inflammation; but also the result of other causes—as exercise; vicarious function; excessive or unusual exertion in the involuntary muscles. It may also be congenital. Certain climates and trades also predispose to its occurrence. Castration and excision of the ovaries will cause hypertrophy.

Division.—Partial or general.

Effect on bulk of organs.—May exist without positive enlargement. Cite examples of this.

Effect on function of organs.

Tissues most liable.

Treatment.

VIII. CHEMOSIS.

Definition.

Causes.—Acute inflammation.

Symptoms.

Tissues most liable.

Prognosis.

Treatment.

Hectic fever has cold hot & sweating stage — generally afternoon or Evening remission paroxysmal

IX. SUPPURATION.

Definition.

Causes.—Invariably the result of inflammation. This is doubted by some, but without foundation. The inflammation must not run too high, for here, as in the secretions, there is a "*secreting* or rather *suppurating point*," above or below which pus will not be formed.

Situations in which it is formed.—1. Upon exposed inflamed surfaces, as the skin, mucous membrane, &c.

2. Upon unexposed surfaces, as serous membranes, cellular membrane, &c; here called "*purulent effusion.*"

3. On granulations.

4. In a sac, to which we apply the term *abscess.*

5. It may be diffused through the whole substance of an organ.

Time required for its occurrence.—Varies from thirty-five minutes up to several hours, or weeks.

Symptoms.—1. Local. 2. Constitutional.

Theories relative to the formation of pus.—Numerous. Those of Hippocrates and Galen, Boerhaave, Hoffman, Stuart, Hunter, Simpson, Morgan, Gendrin, Carswell, Gulliver, Donné, Andral, and Gerber, explained.

Usual change in tissue before pus is formed.—Puogenic membrane of Hunter. New gland of Simpson; not always present; usually exists in abscess.

Pus.—Two kinds; *healthy* or *laudable*, and *unhealthy.*

1. *Physical properties of healthy pus.*—Colour, smell, consistence, taste, specific gravity.

Microscopic examination of.—Two parts, solid and fluid. Solid composed of *pus globules*, and *pus molecules.* Difference between these and globules of blood.

Chemical analysis of.

Tendency to putrefaction.

2. *Several kinds of unhealthy pus.*—(1.) Ichorous pus. (2.) Sanious pus. (3.) Creamy pus. (4.) Curdy pus. (5.) Slimy pus. (6.) Serous pus. (7.) Sordes. (8.) Malignant pus. (9.) Contagious pus.

Character of pus modified by cause and surfaces secreting it.

Action of pus on the surface secreting it.

Diagnosis.—May be confounded with mucus. The various tests examined. Also with tuberculous matter.

Prognosis.—Depends on extent and location of deposite, &c.

Treatment.—General principles laid down. Modified by circumstances.

1. Local remedies. 2. Constitutional.

ABSCESS.

Definition.—A collection of pus in an *accidental* or *preternatural* cavity. When pus is collected in a natural cavity, it is called an "*effusion.*"

Causes.—Always the result of inflammation; theory of Dehaen no longer maintained.

Classification.—1. Old arrangement into "*acute* or *hot*," and "*cold* or *chronic*," no longer retained by most authorities.

2. *Abscess of debility, or asthenic abscess.*

3. *Purulent deposit, or abscess by congestion.*

4. *Metastatic abscess.*

Suppuration. Necessarily the result of Inflammation but there is a secreting point above which or below we have different products. Situations in which it is formed. 4. In sac making abscess. this sac being formed by the plasma, this sac being the pyogenic membrane of Hunter the new gland of Simpson 5. May be diffused through whole substance of part thus making sinuses. d. From 35. to several hours or weeks, In highly organized tissue and high grade of inflammation will form in 35 min. Though we rarely have it formed so speedily. e. 1. an acute throbbing pain swelling often redness the patient above par - effusion of plasma this is destroyed and we have pus. 2. When suppuration is about to commence we have the pain lessened the tenness gone pulse becomes fluttering skin moist no thirst and above one never falling symptom a rigor. f. Of Hippocrates. That pus is an altered condition of blood not so microscope show an essential difference between the pus and blood globule one is flat & disc one simple and other compound. Hoffman considers it a softening of fat. others that it was chyle. Microscope will confound all. Pus is a fluid serum containing dead inflammation corpuscles making the pus globule and containing also the pus molecule and epithelium scales which molecules are nothing but the nucleus of the exudation corpuscle

soft of the skin
fever first, nervous chill or rigor
Retention of pyogenic

1. Pus is fluid of peculiar mawkish taste, creamy
odor no smell if healthy rather tenacious and
sinks in water. Healthy pus is not irritating
unhealthy is. 2. Scrofulous pus globules very
heavy, and will remain at bottom of vessel. 3
A greenish pus very thick showing inf of higher
grade. 3 Slimy pus. Indicating high inflammatory
pus of Dysentery. 4. Sordes a blackish pus showing
Mortification of cellular tissue. 5 Red thick
pus is only simple healthy pus mixed with
blood. 6. Serous pus Called Ichor is thin and
acrid producing much irritation when
comes in contact with healthy tissue being
an altered condition of serum of blood 7. Pus
not only indicates the kind of the kind of inflam-
but also the tissue attacked. for instance if we find
in it phosphate of lime it will show at once the
disease of bone, when from a mucous membrane
there will be in it an unusual amount of
epithelium scales. 8. But one positive test the
Microscope p. will depend on location and
extent. If we have an acute inflam on an
internal surface the prog is unfavorable
if chronic the deposite being slower we will
have time to use our remedies. It will be
more fav. Also Modified by extent of Inflam-
If in brain very unfav. Treatment. 1st Before
Suppuration has taken place we use most active
Antiphlogistics to procure resolution but if in spite
of every thing suppuration will go on we change

Treatment – full diet, wine and ale, warm fomentations, good diet, give bark & opium to support constitution and to relieve pain, and having brought on suppuration if internal must endeavour to procure absorption if external generally puncture the abcess.

Formation of formations
Pus. – 1 Stage of new formations developed out of fibrine. B. Fluid comp of Serum & fibrine & cell – Fluid B. adopted by Virchow & pathologists – Serum & globules
Pus cells – Secondary cells formed and matured
Pus corpuscle or membrane formed of mixed lymph
the fibrine becomes vitalized & scarcely morphous
forms pus. In cell a Nucleus consists of dividing membrane nuclei oil globules & molecules.

Some writers make a much greater variety, based upon *cause*, *tissue*, or *organ involved*, &c.

Changes which take place in the tissues from the period of inflammation to that of suppuration.

Changes that take place after this.—Divided by some into three stages: 1st, deposite of pus in the cells of the part; 2d, maturity, or the collection of this fluid into one cavity; 3d, resolution, either by absorption of the pus, or its evacuation by an operation.

Structure of an abscess.—Depends on its character. The puogenic membrane is usually, though not always, present.

Uses or functions of the cysts.

Mode of growth.

Direction of growth.

Progress of growth.—Slow or rapid.

Termination.—In resolution, ulceration, granulation and adhesion; or it may become encysted.

Effects of air when admitted into the cavity of an abscess.

Symptoms.—1. Local. 2. Constitutional.

Diagnosis.

Prognosis.

Effect on the constitution produced by suppression of the secretion.

Treatment.—1. Local remedies. 2. Constitutional.

ASTHENIC ABSCESS.

Peculiarities of this form of abscess explained.

PURULENT DEPOSITE, ETC.

Definition.—An abscess which differs from the ordinary forms in the circumstance of its pus not being originally formed in the parts in which it is found. It is hence sometimes called *symptomatic abscess.* Cite examples. Why called abscess by congestion?

Parts most liable to this form of abscess.

Pathology.

Character of the pus.

Diagnosis.—Often obscure.

Prognosis.—Usually unfavourable.

Treatment.—Depends somewhat on circumstances. Governed by general principles. To illustrate more clearly the proper treatment speak of that form called *Psoas abscess.*

METASTATIC ABSCESS.

Definition.—An abscess that suddenly forms without any previous indication of inflammatory action, and in parts distant from the point in which suppuration has originally existed. Hence it was supposed by some that the pus actually changed its location, or that *metastasis* took place.

Location.—Usually in the viscera. Sometimes they are met with in the cellular tissue, muscles, joints, &c. They generally select the largest viscera and those most highly organized.

Number.—Varies from one to several.

Exciting causes.—Wounds, great surgical operations, injuries of the head, trivial wounds of veins in bad constitutions, delivery.

Proximate cause.—A number of theories on this point; supposed by some to be tubercles previously existing in the organs attacked, and softened by the general irritation of the system; by others, direct absorption of pus by the veins or lymphatics, is considered the true cause; others again refer it to *sympathy;* but the doctrine now generally received, is that which considers the true cause to reside in *inflammation of the venous capillary vessels or larger veins.*

Condition of the organ in which or around which the abscess forms.

Symptoms.—1. Constitutional. 2. Local. Both modified by the location of the abscess.

Diagnosis.—*Obscure.*

Prognosis.—*Generally unfavourable.*

Treatment.—1. General remedies. 2. Local remedies. Both modified by circumstances.

FISTULA, OR SINUS.

Definition. Sinuous ulcer

Causes. Ulcers, like mucous surfaces, will not heal

Symptoms. Effusion of plasma

Pathology.

Diagnosis.

Prognosis.

Treatment. Sol. Sulphate Copper or Injection of acid mor pr Nitrate of Silver. Setons. Cupping, poultices & dressing ulcer with stimulants

HECTIC FEVER.

Definition.

Causes.—1. *Constitutional.* 2. *Local.*

Symptoms.—May be divided into *three* groups: 1. Slight febrile action, with exacerbations in the evening. 2. The febrile action is continued. 3. Prostration indicated by perspiration, diarrhœa, marasmus, &c.

Diagnosis.

Prognosis.

Treatment.

X. ULCERATION. follows Inflammation

Definition.—Differently defined by different authors. I adopt that of Phillips: "Ulceration is that product of inflammation in which there is a loss of some part of the body, which from some peculiarity, *local* or *general of the constitution,* manifests no tendency to heal, so long as that particular condition exists."

Distinction between wounds and ulcers.

Predisposing or exciting causes of ulceration.—1. Constitutional. 2. Local.

Proximate cause.—Difference of opinion among authors. Hunter's doctrine of "Ulcerative absorption" explained. Difference between it and "progressive absorption."

Liability of tissues to ulceration.—The most highly organized, are most frequently attacked. Some tissues are exempt.

Natural tendency of ulceration.—When left to itself it generally extends. Sometimes it heals *spontaneously.*

Effects of ulceration upon the part attacked, or upon the constitution.

Tissue forming the surface of an ulcer.—Called a *granulating surface.*

Ulceration A good definition but one exception will apply in malignant diseases since nature have deposites granulations to counteract the destructive action of the disease. B. A wound is but a solution of continuity from external violence which may under certain circumstance give rise to an Ulcer. Whilst on other hand an Ulcer is solution of continuity produced by some internal constitutional cause. C. As Syphilis - gout Rheum Scrizula. Local - Violence poisons &c. D. Hunter defines all phenomena of ulceration to absorbents of the part which stimulate its own absorbents to take it up. One argument will prove its fallacy. Would not poisons be absorbed if applied to surface of an ulcer? They would but this is not the case and Hunters theory is untrue. 1st process of ulceration is softening of tissues 2nd is Molecular disintegration sometimes can be seen with naked eye and always with Microscope. 3. part of the tissues may be absorbed but the main part is carried away in the pus. The proximate cause of ulceration then is the loss of that plastic power that must exist that tissues may retain their vital order. E. Whether have healthy or unhealthy always same depends 1st on amount of inflammation. 2. On tissue attacked. 3. on cause whether Constitutional or local. # The surface of healthy healing ulcer is called a granulating surface

[illegible] at a heat of 96° at least will destroy always test are [illegible]

Granulation. Surfaces heal by the effusion of plasma, and its organization. If we examine the granulating surface of an ulcer we perceive granulations and connecting these granulating points, little mucous cylinders which contract and draw these points together. Are mucous cylinders of healthy these granules differ in shape and color. If they have a pyramidal shape they are pus-pouring and wont heal. B. The two though generally combined may exist separately. Cicatrization

B. The tissue uniting wound or ulcer is modular tissue

C. Essentially difference in nearly all cases there is no fibre in modular tissue it is homogeneous Muscle never unites by muscle – In all tissues when plasma is thrown out for purposes of separation it is the same fluid – In some however we have it forming original and in others modular tissue.

In cicatrizing the cuticle is always more delicate than it's overlying skin, under the cuticle there is not left mucosum. The cellular tissue is not like usual cellular tissue but presents different appearance no hair follicle under this cellular tissue no sebaceous follicle. The modular tissue therefore is below par, less vital power in consequence of its deficient organization and will break sooner than any other tissue it is the weakest part of the body. It is thus a peculiar tissue and with peculiar diseases to it only. It has a cancer but this scirrhus is not like ordinary scirrhus Hence the importance of healing if possible by 1st intention of Hunter solutions antiseptic.

When plasma throws out 2 changes one coagulates weak corpuscles into fibre. Other plasma cell into organized nucleus — aggregate to form blood together

GRANULATION.

Nature of granulations.—1, basis or element of which they are formed; 2, size; 3, colour; 4, shape; 5, temperature; 6, organization. Guterboch's statement as to what enters into the composition of a granulating surface.

Dependence of granulation upon suppuration.—Pus is supposed by some to be essential to the formation of granulations; by others this is doubted. It is not found, for example, in ulcers of the *cornea* or *cartilage.*

CICATRIZATION.

Cicatrization, or *the healing of granulating surfaces.*

Definition of a cicatrix.—Tissue by which a wound or ulcer is united. By Delpech it is called the "*inodular tissue.*"

Difference between cicatrix and the tissue it unites.

Modification.—This process is modified by a variety of circumstances; for example—

1. When it occurs under a scab or crust of blood, the cicatrix forms over the whole surface, and is smooth and pliant.

2. When it takes place on a smooth, moist surface, as when a wound heals by the "modelling process of M'Cartney," the surface is smooth, and the cicatrix a mere line.

3. When it forms on granulations, the process usually commences at the edges of the ulcer, and the surface is often irregular and prominent.

4. It is also much modified by the *cause* of ulceration. Those, for example, produced by burns or scalds, are more irregular, have more extensive adhesions, and cause more serious deformity, than when they result from any other cause. *Specific ulcers* usually produce a characteristic cicatrix.

5. The character of a cicatrix is also modified by the *tissue* in which it occurs.

Structure of cicatrix. Specimen, fibrous tissue & fragment muscle of Heart

Profundity or depth.

Force with which it contracts during the process of formation.

Circumstances which prevent or retard cicatrization.

Nature of the tissue of a cicatrix.

Power of resisting disease, and diseases peculiar to the cicatrix.—Refer to Mr. C. Hawkins for an excellent paper on *Cancer of Cicatrices.*

Form of cicatrix. Dupuytren's classification. p 5 19

Prognosis as to the result of operations.—Depends on a variety of circumstances. We must take into consideration—1st, the depth of the cicatrix; 2d, its age; 3d, its location; 4th, its extent; 5th, its peculiar character; 6th, its vascularity; 7th, the condition of the parts in its vicinity; 8th, the health of the patient.

Treatment of cicatrices.—May be divided into—1. That proper during the formation of the cicatrix. 2d. That required after its complete formation.

Indications under first head.—1. Remove all agents calculated to prevent cicatrization.

2. Endeavour, as a general rule, to make the cicatrix as small as possible, unless by so doing we interfere with some function.

3. Prevent the cicatrix being too small or too short, as in wounds about the fingers, face, &c.

4. By caustics or the knife prevent fungous granulations.

Indications under the second head.—1. Endeavour to relax the cicatrix by frictions, baths, extension, &c.

2. When these means fail, perform an operation. The character of the operation is modified by circumstances. To render this part of the subject more simple, the operation required in each form of cicatrix may be briefly referred to.

(1.) In the *narrow cicatrix* without extensive adhesions, divide the cicatrix, extend it, and maintain it extended for some time.

(2.) In the *prominent cicatrix*, *slice* it off, or keep it down with *caustics*, or *slough* it out.

(3.) In the cicatrix with *extensive adhesions*, cut out the cicatrix and fill up the space with sound skin. The practice of Hildanus, Earle, &c., in these cases explained.

(4.) In contraction of *natural openings*. The operation of Dieffenbach, &c., explained.

(5.) When an organ is *entirely destroyed*, the *cicatrix* must be removed, and a plastic operation performed.

ULCERS.

Definition.—Solution of continuity, accompanied by the secretion of pus or other fluid—(Liston and S. Cooper.) A granulating surface secreting pus—(A. Cooper.) This definition is objectionable, inasmuch as we may have secretion of pus *without granulations*. The definition of Liston and S. Cooper is better.

Difference between ulceration and an ulcer.

Classification.—Difficult. The causes, the symptoms, and the parts attacked, have each been taken as the basis of a classification. That of Liston I prefer, as being most simple. He makes six varieties of ulcer, and in this agrees with Sir E. Home. Their classifications are almost identical.

1. The simple, healthy, or healing ulcer.
2. The weak or sluggish ulcer.
3. The indolent ulcer.
4. The irritable ulcer.
5. The specific ulcer.
6. The varicose.

SIMPLE ULCER.

Characteristics.
Causes.
Class of persons usually affected.
Parts of the body attacked.
Prognosis.
Treatment.

WEAK ULCER.

Characteristics.
Causes.
Class of persons usually affected.
Parts of the body usually attacked.
Prognosis.
Treatment.

D. 1. Here we find the cicatrix to be more highly organized and to approach much more closely than it would otherwise the original tissue we should bear this in mind in wounds of face. often imitate a scab by use of collodion or piece of lint dipped in blood. 2. If allowed to heal by ordinary process there will be a lump. To avoid this Mr Cartney introduced what he calls the modeling process, done by keeping part at certain temperature and moist and we have a deposit layer after layer until the the part heals. 3. 1st indication of healing is shown by edges having on them a whitish deposit, but we have always a rough and prominent scar or cicatrix. 4. By cause as from scalds burns owing to the condition of surrounding tissues being altered. and the contraction will in these cases be very great. 5. As in a mucous tissue we nearly always find the scar to be depressed not prominent, and angular tractus not to be care in giving medicines to those who have suffered copious of mucous membrane. Cicatrices are often so much contracted as to destroy entirely the use of part. Prognosis will depend on structure. On depth, here unfavorable as the tissues beneath are involved. Age of cict. The older the more favorable. 3 Location 4 More extensive the more unfav. the prognosis. 5 its character. 6. Where its is very red and there much hemorrhage to be expected the more unfavorable

certain ind in each particular form of the cicatrix for instance in linear cicat. as in contraction of fingers, cut it across in several places straighten and keep it in a splint until 5 or 6 months have gone by, and if prominent cut it off or out and bring the sound parts together. 3. In cicat with extensive adhesions cut it out entirely and cover the space with sound skin by plastic operation — caustic — rule shave off and heal in the water — if can remove it entirely and bringing parts of sound skin 3. If to dissect out ind tissue cut out and the muscles which are contract and out strictures org skin

Mortification. a generic term including under it two stages - Gangrene the state in which a part is before it dies - Sphacelus complete death of the part. Gangrene dry is most extent and under favorable circumstances the part may be restored to health

Classification. 1. Hot, acute, or where there is heat and tenso. Usually inflammation. 2. Cold. No inflammation the part being cold and clammy. 3. Humid. Where there is separation from the rest of the part. Swelling & oedema &c. Where the fluid seems to be absorbed. 5. Chronic - a constitutional disease attacking in perfect health, taking a long time for its full development. Only symptom is a long continued and burning pain in big toe, occurs generally in old people of bad habit of body fat livers &c in, consequence often post constitutional causes. Sometimes brought about by local causes. 7. At certain periods almost every operation though done apparently under the most favorable circumstances ultimate in gangrene. 8. Phagedenic as in Syphilis

Causes. Neuralgia. neglect this & treating the cause. Inflammation. Surgical operation neglect this in removing cause

INDOLENT ULCER.

Characteristics.
Causes.
Class of persons usually affected.
Parts of the body usually attacked.
Prognosis.
Treatment.

IRRITABLE ULCER.

Characteristics.
Causes.
Class of persons usually affected.
Parts of the body usually attacked.
Prognosis.
Treatment.

SPECIFIC ULCER.

Characteristics.—Depend on cause.

Causes.—Cancer, scrofula, fungus, scorbutus, syphilis, &c.

The peculiarities of these ulcers will be pointed out under the heads of their respective causes.

VARICOSE ULCER.

Characteristics.
Causes.
Class of persons usually affected.
Parts of the body usually attacked.
Prognosis.
Treatment.

XI. MORTIFICATION, OR SPHACELUS.

Definition.

Difference between gangrene and sphacelus.

Classification.—Several terms are employed to designate the different groups of phenomena which characterize mortification under different circumstances. We have, for instance—

1. Hot, acute, traumatic, or inflammatory mortification.
2. Cold, or that which takes place without previous inflammation.
3. Humid, or that accompanied by the effusion of fluids.
4. Dry, or that in which little or no secretion or effusion occurs. From the fact of its being chiefly confined to old persons it is often called "Gangrene Senilis."
5. Chronic, or that form described by Pott, as attacking chiefly the extremities.
6. Hospital gangrene.
7. Epidemic gangrene.
8. Specific gangrene—example. Malignant pustule.

Causes.—Various. It must be recollected that mortification may result from many causes besides inflammation. Nearly all of these may be ranged under four or five heads.

1. It may be occasioned by any cause capable of producing a cessation, or partial cessation, or even a feebleness of the circulation in a part—as inflammation, mechanical obstacles, debility, ossification of arteries, &c.

2. By any cause which occasions violent mechanical or chemical changes in the part, as contusions, lacerations, heat, cold, mineral acids, and caustic alkalies.

3. By any which, in consequence of their poisonous properties, will produce a deleterious influence upon the system at large, as the virus of rabid animals, and poisonous reptiles, and animal fluids the result of decomposition.

4. By any that will impair the powers of nutrition, or furnish bad chyle. High living, or bad food, certain articles of food, (as ergot,) bad air, bad lodging, and certain trades by obliging individuals to deny themselves proper food, air, and exercise, will all predispose to mortification, and may produce it without local injury.

5. By any that will cause intense passions or emotions of the mind. (*See* Langenbeck.)

Manner in which these various causes operate upon the parts attacked.—

Liability of tissues to mortification—some more liable than others.

Time required for the process of mortification to be completed.—Depends on circumstances.

1. It may take place very slowly.
2. It may occur very rapidly.
3. It may be instantaneous.

Symptoms.—1. Constitutional. 2. Local.

Process of sloughing.—When in consequence of our remedies or the vix medicatrix naturæ, the progress of mortification is checked, a *distinct boundary line* is formed between the *living* and the *dead* tissue, and nature proceeds to *amputate*, as it were, the portion which has lost its vitality, by a process termed "*sloughing*," and where the bones are concerned by "*exfoliation*," the chief agent in the accomplishment of which was called by Hunter "*disjunctive absorption*."

The different changes which take place in this process described.

The period at which it occurs after mortification is completed depends on circumstances. State what these are. Condition of parts after the separation of the slough, and their manner of healing.

Prognosis.—The effect produced upon the system by the occurrence of mortification depends on the part involved. If the organ destroyed is one of importance, or vital, the death of the animal is either instantaneous or speedy. If, on the other hand, the part affected is not essential to life, sloughing takes place and the individual recovers. Sometimes; however, this process is so tedious, and the parts destroyed so extensive, that death ensues in consequence of debility and hectic fever. It is also modified by the kind of mortification present.

Diagnosis.—May be confounded with other discolorations of the skin. Positive signs of mortification must always be present before we pronounce upon the nature of the case. We must always be careful to ascertain the *depth* of the slough; for the skin alone may be affected, when there is every appearance of the whole limb being involved.

Treatment.—To prove of any advantage, so far as the affected part is concerned, our remedies must be applied in the stage of *gangrene*. They are also modified by the varieties of gangrene, the general condition of the patient, the character of the cause, &c. We may, however, lay down certain general indications to be observed in the management of all cases.

1. We must endeavour to apply such remedies as shall put a stop to the disease in the stage of *gangrene*.

2. We must endeavor to arrest the progress of *mortification* when once formed, and at the same time lessen the violence of the local and general symptoms.

to degree of organic [illegible] the latter [illegible] being the opening the heart being most typically attacked [illegible] [illegible] months white gangrene is caused by patient sleeping on his arm. Distinct and chronic in injury by pressure [illegible] pledgets performed lately. Death sometimes occurs during or after the completion. Symptoms. Mental alteration. The pulse becomes irregular and jerking - feels as if the arteries filled with air. Skin becomes cold and flabby. Tongue covered with white fur and very tremulous. Increasing the case of stimulants. The thumb is generally closed in the palm. Local. Color black from stagnation of circulation, loss of addition of air, gangrene from the change. Color shows the importance of gangrene it may however be only in the skin. When separation is complete we find a heavy scar resulting from the effusion of plasma stopping up the vessels and thus preventing hemorrhage. A clear line of demarcation showing the result of the disease.

Treatment. Remove the cause if possible. If the disease results from inflammation antiphlogistics general and local. If strangulation divide structure or give measures, by free incisions where there is binding down by fascia's or skin. Local remedies - cold and astringents lotions warm fomentations poultices, leeches &c in the early stages of gangrene the latter often prove very beneficial

25 pap.

Trap Cent – 1 – where conditions will permit the wound to heal by primary union, use constitutional remedy with such put Dis Pst dang or Cpp
2 – 3 – sympathetic fever setting in & changing the character of normal suppuration – end – control by most potent remedies – 5 – Second – 1. wds stimulate have a scab formed the plasma being drawn up from – acting rapid as irritation
2nd Keep up irritation and sloughing – If healthy granulating body wanted lines or edge of dead get rid of the foreign body sloughs. 3 – Stolen advance in all inflammation around but above the normal tissue the wound spines – 4 – may unite by medium process – usually by granulation
5 – nothing work – better to trust to nature
Sponge carefully foreign body lying edges together – and put on. Adhesive strips – Mitchell's Dressing 72 part – More simple better if in wounds of trunk
Incised Wounds –
where tissue divided with clean cut hemorrhage superficial edges come together bleeding Tells by manner of blood pulsating but and by color – dark of blood or
Bad wound punctures – wds bleed most pain – depends on lesion nerve amt of pain (?) indication of extent lesion punctured nerve gives rise [illegible] pain more than wound [illegible]

Contrast of organic contractility and muscular contractility favor –
Heat – Serous effusion
Ligature – action on vessels differs from veins only per others the veins and the phlebitis – scarcely any effusion of plasma – nerve pains
When the artery the cellular tissue yields and internal and middle coat burst when diseased vessel 1/2 mile back

3. We must favor the separation of the slough, and when nature is incompetent to the task we must effect it for her.

a. In obeying the first general indication, we must always take into consideration the *cause* of the attack, and remove it, if possible, at once. If *inflammation* is the cause, *antiphlogistics*, general as well as local, are to be employed. If *strangulation*, or the *arrestation* of the *circulation* be the cause, the stricture must be divided by an operation, or relaxed by nauseants, &c. When produced by the *binding of aponeurosis*, or *skin*, as in *carbuncle*, free incisions are to be made. When *intense cold* is the cause, the temperature of the part must be gradually increased, and the subsequent inflammation treated on general principles, &c. The best *local remedies* as a general rule, in this stage, are *cold* and *astringent lotions*, or *warm fomentations*, *water dressings*, or *poultices*. *Leeches* may also be occasionally employed.

b. In carrying out the second general indication, we must resort to both constitutional and local means. Tonics, as bark, wine, opium, a good diet, and fresh air, will generally be required. The local remedies are *incisions*, (to be used only when the tissues bind, or fluids are infiltrated to some extent,) *blisters*, *nit. argent.*, *creosote*, *yeast* or *carrot poultices*, *chloride of soda*, *pyroligneous acid*, and *carbonated water*. Charcoal and bark, once so highly esteemed, are not much employed at present.

c. The third general indication is answered by the application of warm dressings and poultices; removing the loose sloughs with the scissors and forceps; and by amputation.

Period at which amputation should be resorted to —Depend on cause. In traumatic mortification remove the limb as soon as possible. In all other cases wait until the "*red line of demarcation*" is formed.

Point at which amputation should be performed.

In this stage it is usually necessary to support the constitution of the patient.

There are certain kinds of mortification which, from their peculiarities, deserve a separate notice. The first of these is

DRY GANGRENE.

Definition.

Synonymes.—Gangrene senilis—gangrene of the rich.

Persons most liable.—The old and dissipated. Men are more frequently attacked than females.

Causes.—Divided by Francois into two classes.

1. Those which operate through the medium of the *vascular system*, as inflammation of the vessels, formation of clots in their cavities, obliteration of vessels, ossification of arteries, diseases of the heart, diseases of the blood from bad food, as ergotted grain, &c., and mechanical injuries which obliterate vessels.

2. Those which produce their effect in consequence of either local or general debility of the *nervous system*, as palsy, old age, and the excessive debility of certain diseases, particularly phthisis pulmonalis.

Symptoms.—1. Constitutional. 2. Local. When ergot is the cause, the attack may commence with convulsions of the limbs and vertigo, or it may begin with the usual local symptoms of dry gangrene from other causes. The former was called by Linnæus "convulsio cerealis," and by Wepfer, "convulsio ab ustaligine." The latter, "necrosis ustilaginea," by Sauvages.

Prognosis.—Usually unfavourable.

Diagnosis.—May be imitated by malingerers.

Pathology.—Still a matter of dispute. Cite the different views of Delpech, Cruveilhier, Dupuytren, Thuillier, Tessier, &c.

Treatment.—1. Constitutional. 2. Local.

INFANTILE GANGRENE.

Definition.

Persons liable.

Parts usually attacked.

Causes.—Question of its contagiousness.

Symptoms.

Prognosis.

Diagnosis.

Treatment.

CHRONIC MORTIFICATION.

Definition.

Persons most liable.

Causes.

Symptoms.

Prognosis.

Diagnosis.

Treatment.

HOSPITAL GANGRENE.

Definition.

Synonymes.—Phagedena gangrenæ; putrid or malignant ulcer; hospital sore; gangrena contagiosa.

Causes.

Symptoms.

Prognosis.

Diagnosis.

Pathology.

Treatment.

MALIGNANT PUSTULE OR CHARBON.

Definition.

Causes.

Symptoms.

Prognosis.

Diagnosis.

Treatment.

VARIETIES OF INFLAMMATION.

ERYSIPELAS.

Definition.—A peculiar form of inflammation attacking the skin and mucous membranes, taking its name from two Greek words which signify *red* and *skin*. It is also called St. Anthony's fire.

Encyclopedia

Cicatrization Prog - 1 - more profound more tissue and if bound down to prevent motion
2 age - If recent 6-8 months first touch - because the cicatrix is not true healing - 3 - In non vital part not hazardous - In throat most unfavorable -
4 - More extensive the cause the prognosis -
5 - If disease or growing out more fatal
6 - If very old scar touch the origin is in question, put under local astringent washes &c
7 - If form change of position of parts Cicatrix of bones has taken place but separate
8 - Syphilis or Scrofula and general health bad but opinion

Treat - 1st Mechanically to modify - when in spite of everything it does succeed - assist nature in Cures - Relief - Stretched 2 forms - cut off superabundant granulations and cauterizing - prepared to take out by cicatrix fibrous in glutinous adhesion - with substitute healthy skin for morbid tissue - where cicatrix appears healthy material

Cicatrization - Rule 1 - Keep away from atmosphere - by painting with Collodion or some occluding surface. 2 - mean the accomplishment of healing by successive layers of plasma - inequality of healing - owing to contraction of mucus cylinder of Hale - in burns the contraction of cellular tissue elevates cicatrix in wounds of skin never in mucous membrane - fig - 1 Pelvis of cellular & areolar tissue of lamella no hair bulb no oil gland follicle no rete mucosum few nerves and few blood vessels - 3. proper subcutaneous tissue if extends into muscle or presents muscles fibres hardened by effusion of plasma - may produce luxation in consequence of contraction & deduction - resort to treatment - motion prevent healing or healing smoothly - atmosphere not effect in creating great poison to ulcerated surface - Low temperature will stop healing - the negative state should be changed - warm dressing same way - warm - of healing point - and moist too warm or too cold not same power to resist bad atmosphere & depression causes - in consequence of depressed vitality - action tonics - will always attain if elevate half - put him on Donovan solution and cut off as often as it recurs - Suppuration - 6 Kinds 1 healthy - 2 pronounced excessive pleasant 3 - Sanious (Phlegmon) more dangerous kind - 4 2 and obstructing cavity - Treatment of Where region involved is made to disappear -

Division.—Almost every writer has given his own classification. I adopt that of Mr. Lawrence. He makes four varieties:—1. Erythema. 2. Simple Erysipelas. 3. Œdematous Erysipelas. 4. Phlegmonous Erysipelas.

The "erysipelas ambulans vel erraticum" of La Motte, and the "universal erysipelas" of Hoffman and others, being mere modifications of one form or the other of the varieties made by Lawrence, should not be considered as *peculiar* forms of the complaint. The division into *idiopathic* and *symptomatic* may be retained.

Symptoms.—Vary in the different forms.

Seat of the disease.—Commencing on the surface of the skin, it gradually becomes more profound until it involves in some cases the subjacent cellular and other tissues.

Question of its contagiousness.—Still a disputed point. For my own part I believe that it is not. It may be epidemic.

Causes.—Predisposing—constitutional and local.

Prognosis.—Depends on location and extent—the health and condition of the patient.

Diagnosis.—May be confounded with common phlegmon.

Treatment.—Varies somewhat with the kind of erysipelas. May be divided into—1. Constitutional. 2. Local.

Being essentially inflammatory, *antiphlogistic* remedies are required in the first stage. Emetics are often useful. In phlegmonous and œdematous erysipelas, when sloughing occurs, it often becomes necessary to support the constitution.

The *local* remedies are very numerous. 1st, cold; 2d, leeching; 3d, scarifications; 4th, incisions; 5th, blisters; 6th, argent. nit. as applied by Davidson, or after the method of Higginbottom; 7th, tinct. of iodine; 8th, British oil; 9th, ungt. hyd. mit.; 10th, dry powders; 11th, compression, as recommended by Velpeau and Bretonneau. Examination of the value of these different agents.

ANTHRAX, OR CARBUNCLE.

Definition.—A deep-seated, circumscribed inflammation of the skin and cellular tissue, characterized by its hardness, peculiar burning pain, and termination in gangrene.

Varieties.—Benign and malignant.

Causes.—Constitutional and local.

Symptoms.—Vary with stage.

Diagnosis.—Pustule maligne may be mistaken for it; also, common furuncle, and erysipelas.

Prognosis.—Depends on location and general health of patient.

Termination.

Treatment.—Varies with stage.

FURUNCULUS OR BOIL.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Termination.

Treatment.

PERNIO, OR CHILBLAIN.

Definition.—Specific inflammation. The result of cold.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.—Divided into that proper in the early stages, and that required after vesication and ulceration have taken place.

FROST-BITE.

Definition.—A form of inflammation the result of the application of intense cold to any part of the body.

Symptoms.—Constitutional and local.

Diagnosis.

Prognosis.

Treatment.—Varies with degree, location and stage.

BURNS.

Definition.

Causes.

Classification.—Hildanus, Boyer, Thompson, and others, make *three* kinds:

1. *Superficial*, involving merely the outer surface of the skin, and terminating always in resolution.

2. *Vesicular*, or *ulcerated*, in which the cuticle is raised into blisters.

3. *Sloughing*, in which the cutis is destroyed either immediately or subsequently, and forms either a "soft slough or hard eschar."

This classification being simple is the one most generally adopted, but that of Dupuytren is much more scientific; being based as it is upon the nature of the textures and organs involved. In this, *six* varieties or degrees are made.

1. Erethema, or superficial phlogosis of the skin without vesicles.

2. Inflammation of the skin, with detachment of the cuticle and formation of vesicles.

3. Destruction of the corpus papillare, and rete mucosum.

4. Complete disorganization of the cutis down to the cellular tissue.

5. Conversion of all the superficial textures and muscles into eschars.

6. Carbonization of the whole thickness of the burnt part.

Symptoms.—Vary with the degree of violence with which the causes producing them have operated. Divided into—1. Constitutional. 2. Local.

Diagnosis.—May be confounded with erysipelas.

Prognosis.—Deduced from extent, depth, and situation; age and constitution of the patient; and the character of the cause.

Periods of Danger.—According to Dupuytren there are four:

1. The stage of irritation, or the period of the first shock on the system.

2. The stage of inflammation.

3. The stage of suppuration.

4. The stage of exhaustion or hectic.

Post mortem.

Treatment.—Varies with the degree, &c.

In the *first* and *second* degree, we must endeavor, by both constitutional and local measures, to prevent inflammation or limit its extension, and relieve pain.

Abscesses grow by interstitial
Deposit & Pressure absorption
The abscess heals by stimulus of
contraction & by cicatrization

3 operations for tapping in Hydropericardium
tapping Sternum. 2. under Sternum
Xiphoid Cartilage 3. bet Cartilages of
6 & 7 rib. No Trocar.

3. for Hydrocele. 1 Seton 2 Incising
And 3 Tapping

Should there be no *chill*, the best topical applications, at first, are cooling refrigerant lotions; should fever supervene, low diet, venesection, topical bleedings, and cooling medicines, must be administered; and to allay pain, it is proper to give anodynes.

When the patient is cool or prostrated, wait for reaction or promote it, and in the mean time cover the burnt part with raw cotton.

When reaction takes place, then resort to the antiphlogistic system.

When vesicles form, and suppuration takes place, apply, instead of the cold, the linimentum aquæ calcis, or a mild poultice.

The vesicles should always be punctured with a needle, and the fluid thus evacuated.

The cuticle must not be removed.

In the *third* and *fourth* degrees, the same general rules are to be observed.

Where the pus collects under the slough, free incisions are to be made, and poultices applied until the slough is detached, or until healthy granulations form.

In the *fifth* and *sixth* degrees, the patient is generally prostrated, and we have to resort at once to stimulants. Some advise *local stimulants*, or "the calefacient treatment;" but as the parts are nearly if not entirely destroyed, and must be detached by sloughing, it is best to apply warm poultices at once. During the detachment of the slough, the patient's strength must be supported.

The ulcers resulting from the detachment of the slough are generally indolent, and must be treated on general principles.

Where a limb is entirely destroyed, amputation must be resorted to as soon as reaction takes place.

Local treatment during cicatrization to prevent deformity.

Local treatment of the deformities arising from the unfavourable cicatrization of burns.

SCORBUTIC INFLAMMATION, OR SCURVY.

Definition.
Causes.
Symptoms.
Pathology.
Prognosis.
Diagnosis.
Treatment.

SCROFULOUS INFLAMMATION, OR SCROFULA.

Definition.
Synonymes.
Tissues most liable to be attacked.
Age at which the disease usually manifests itself.
Causes.—1. Hereditary. 2. Accidental.
Characteristics of the "scrofulous diathesis."
Symptoms—1. Constitutional. 2. Local. Both are modified by the organ or organs attacked.
Diagnosis.
Prognosis.
Pathology.
Treatment.—1. Local. 2. Constitutional.

WOUNDS.

DEFINITION.—A recent solution of continuity in the soft parts suddenly occasioned by external causes, and attended at first by more or less hemorrhage. —(Cooper.)

OBJECTIONS TO THIS USUALLY ACCEPTED DEFINITION.—A wound may be produced by violent action of the muscles alone; and by the protrusion of a fragment of bone. We may also have a wound occurring in bone.

CLASSIFICATION OF WOUNDS.

First division—Is based upon the nature of the instrument inflicting the wound. Thus we have *incised*, *punctured*, *lacerated*, *contused* and *gun-shot* wounds.

Second division—Is based upon the introduction of some venomous, morbid, or putrid matter, into the wounded part. Hence we have *poisoned*, *specific*, and *dissecting* wounds.

Third division—Is based on the regions or parts involved. Thus we have wounds of the *head*, *face*, *chest*, *abdomen*, &c.

Fourth division.—Wounds are also divided into the *simple* and *complicated*.

DANGERS OF WOUNDS.—These depend on—1st, the size, or the extent of injury; 2d, the weakness or strength of the parts involved; 3d, the importance of the organ; 4th, the size of the bloodvessels involved; 5th, the kind of vessel (artery or vein); 6th, the diathesis of patient; 7th, the age of patient.

CAUSES OF DEATH.—1st, hemorrhage; 2d, tetanus; 3d, traumatic fever; 4th, erysipelas; 5th, hectic fever; 6th, gangrene; 7th, metastatic abscess.

PROCESS OF HEALING.—Until recently, only *two methods* described: union by the *first intention*, and union by *granulation*, or the *second intention*. Professor M'Cartney has established the existence of two others, and we may, therefore, make four different processes of union, viz.:

1. Immediate union.
2. Mediate union by lymph or blood, or union by the first intention.
3. Union by the modelling process.
4. Mediate by granulation, or by the second intention of Hunter.

OBJECTIONS TO MCCARTNEY'S VIEWS.

MODE OF ORGANIZATION OF THE LYMPH AND BLOOD.

DIFFERENCE BETWEEN HUNTER AND MCCARTNEY RELATIVE TO THE NECESSARY PRESENCE OF INFLAMMATION IN THE HEALING OF ALL WOUNDS.

COMPARATIVE ADVANTAGES OF THE DIFFERENT MODES OF UNION.

First and *second* should generally be attempted; because when either takes place, we save *time* and *pain*, and obtain a *strong* and generally but *slightly deformed* cicatrix.

State the objections urged by many of the French authors and others against these two modes of union in large wounds.

a - certain exceptions may have a wound by action of internal causes. as by violent action of muscle alone, or protrusion of projecting bone

Definition - Simple wound is one made with sharp cutting instruments involving no important organs. Comp. reverse

1 - size. the larger the more unfavorable

2 - exp - small wound in head - be careful not

2, Every organ when of low form of structure contains but few blood vessels & hence unfavorable

3 - the larger the portion the danger - exception if wound of 5 ligs from the mid pelvis - may be from the cause -

6 - some slightest scratches may sometimes give rise to greatest hemorrhage - and hence

wounds healed by sup puration and

by first intention - 4 the young the old the children - weakly too young

Q - 1 - 2 may come in several days - may come on on 8 or 10 day -

12 hrs after injury - one dose of opium

when fever comes on or exp. 3 - The fever may complication by the sympathy it creates in very many organs - 4 - always watch the head - but neglect - 5 never an early comp always present when suppuration has occurred - have no fear and slight reaction pass off by perspiration may kill patient always look out - and give stimulant and tonics to remove cause - 6 - pain 7 - always recurs after suppuration fully established if patient is comatose vomiting wound dry or secretion altered in character - usually pro

which best in wound for you, very to find - Cleanse wound and endeavour to make heal by 1st in of Hunter is by immediate French / condition that they contend that this is best for recovery of patient, certain bones forbid union by 1st intention as when there are foreign bodies in lacerated wounds - not by 1st nor Inversed

Subacute inflam - arising in consequence of irritation and predisposing sympathy, the irritation of wound - becomes greater in brain the irritation is transferred and positive inflammation - If patient has it Elim stump - blister - Arse head - great tempt for - tinct of Aconite - Coma - and Stimt fo -

f - Hunters theory - may unite in other ways - by Immed Union - and Immed pos 1st Med Union Cut finger squeeze out blood draw together and muscle unites Nerve in chest comes to unite by the intermediate - time some deny and say must always have union. This is Immediate union of macartney - opposite theory like cancer - Union 1st 1st Mediate union by lymph. where lips of wound are held together by lymph interposed by blood is not poisonous body - lymph in large coagula -

may be organized Dustin infected but must be small - 4. Mod forces - form fibrinous plasma - goes on to organization without granulation - forming only the inadhesive must have wet - moist layer upon layer - restoring depth of loss which plasma must granulate 2 int of hunter - or granulation - 4 months -

Mc Cant Diff from hunt - one day must have inf - other say if have it prompt union - 1st int not inflam - only irritation if goes on to a higher grade have inflam - and suppuration - hunter says idea erroneous cannot have Adhesive inflamm - Surgeon must select kind of wound attempt in not lacerated always shame Union bed or immed - because cicat stronger and firmer than 2 inten - to save time - to save scar linear small and pliable -

Incised Wounds. a. One made with sharp instruments, with blood most since the vessels are cleanly divided, hence the chief danger is the hemorrhage. b. The reduction is important, as by this knowledge we know something of the parts expected gaping produced by muscular contraction we pay attention to this since we cannot heal the wound without placing limb in such a position as to relax the fibres, a rule then to look to position.
2 The bleeding depending on size of vessel — and on the vessel itself difficult sometimes to distinguish whether arterial or venous, if it is purely arterial we will have blood spurting, or if from vein, we will have a pumpish blood, if arteries are wounded, compress main art of limb between wound and heart, and all the wise cease but slight oozing. The loss of blood depends on kind of wound, whether oblique ~~transverse~~ or perpendicular, in transverse much less danger, owing to contraction of vessel and making it smaller.
3 Pain we must regard this, since the pain will influence this force and inflammation give anodyne then to quiet it.
C The Treatment. 1st Arrest. do not wait for nature by interfere actively, when we can't reach the bleeding vessel then we aid nature. If the artery is merely punctured it will bleed more than if was cut across, as the organic contraction and retraction reducing the size of caliber and also the length

CIRCUMSTANCES PREVENTING UNION BY THE IMMEDIATE OR MEDIATE PROCESSES. —Divided into—1, constitutional; 2, local.

First, or constitutional.

1. Bad habit of body.
2. Diseases of various kinds.
3. Simple fever.
4. Vitiated atmosphere in hospitals, &c.
5. Epidemic influences.

Second or *local.*

1. Atmospheric air.
2. Foreign bodies lodged in the wound.
3. Large coagula of blood.
4. Laceration or severe contusion of the parts.
5. Faulty dressings.

CHARACTER OF THE TISSUE BY WHICH WOUNDS ARE UNITED.—Already alluded to. It is a singular fact, that with the exception of bone, all tissues unite by a substance different from themselves.

The different classes of wounds may be next considered; and first of

INCISED WOUNDS.

Definition.

Extent and direction.—Always to be regarded.

Characteristics.—Pain, gaping, hemorrhage.

The pain is owing to lesion of the nerves; the gaping to the ordinary elasticity and contractility of the parts, and also to the situation of the wound. The hemorrhage proceeds from a wound of an artery, or vein, or both, and its character is modified accordingly. State these modifications. Its activity is dependent upon the character of the wound, and the size of the vessel.

Prognosis.

Treatment.—General indications.

1. Arrest the hemorrhage.
2. Remove foreign bodies.
3. Approximate and retain the sides of the wound in contact.
4. Prevent or subdue inflammation.
5. Protect the wound from injury by appropriate dressings.

First indication.—Hemorrhage may be arrested either by an effort of nature, or by the assistance of the surgeon. Explain the process by which the bleeding is *spontaneously* arrested. We are not to wait for this, however, but must resort to the various agents afforded by our science. These are numerous, and are to be modified or varied according to circumstances.

1. When the vessel is deep and beyond our reach,—as in wounds of chest, abdomen, &c.—our best remedies are bleeding, digitalis, cold, rest, low diet, and positive quietude of mind.

2 When the vessel is accessible, we may resort to

a. The ligature.
b Torsion.
c. Machure.
d. Refoulement, or reduplication.
e. Compression.
f. Refrigerants.
g. Styptics.
h. Suture.
i Plugging.
j. Seton.
k. Acupuncture.
l. Electro-puncture.

The most important of these agents is the

LIGATURE.

History.—Mentioned by Celsus; but not generally employed until the time of Paré.

Effect on an artery.
Effect on a vein.
Changes which take place in the blood contained in the vessel.
Changes which take place in the vessel itself.
Manner in which the ligature is discharged.
Cause of danger when the ligature comes away.
Time required for the obliteration of the vessel.
Materials of which ligatures are usually made.
Shape and size of ligature.
Mode of tying the ligature.
Method of applying a ligature.—Depends on the location of the vessel.

1. When the vessel opens on a surface, as in the wounds of amputation, &c., we require a *tenaculum*, or *artery forceps.*

2. When the vessel is deep-seated, or when we wish to cast a ligature in the course of a vessel, as in aneurism, we may use the various *aneurismal needles*, or a *bent probe.* Objections to the needles. In all large wounds it is well to apply a ligature to *both ends of the vessel.* Why?

Subcutaneous ligature.
Ligature d'attente, or *ligature of reserve.*
Scarpa's ligature,
Ligature and section of the vessel.
Temporary ligatures.

TORSION.

Definition.
History.
Arteries to which it is considered applicable.
Mode of performance.
Objections to its employment.

circulation stagnates, and coagulum formed
there are two the external and the internal
at three step the bleeding inflammation
sets up plasma is effused and vessel is cemented
into a fibrous cord as far up as the first
anastomosing branch, if the vessel is large
wire ligature a cord for life if small will
be absorbed, then tie an artery than near a
branch as danger of 2nd Hemorrhage
is imminent. In lacerated wounds clot is circular
filling the vessel entirely in incised pyramidal
twisted and reaches first branch. Not wait for
nature (unless a vessel is cut entirely across,
will nearly bleed) But if superficial cut it
entirely across - as temp artery. Some times
have no external hemorrhage, blood flows in
to a cavity. change the position of patient to
make him faint, or if strong open both veins
on arm - If don't come to in 4 to 5 min - throw water
if hemorrhage ceases give him digitalis, keep
in a cold room, and at slightest approach
of fresh blood, or use Hemostatic instrument
Regimes Also Employ E. I. Ligature for small A
E.a. Not Employed until time Ambr Paré. b.
Art has 3 coats, in tying ligature divides two
of them, the internal and middle, but in
some cases, best only to compress the coats.
As a general rule - in large til till find the coats
yield, from this wound in coats have an effusion
of coagulable lymph, If the internal is not
divided lymph not being thrown out, much
danger of secondary hemorrhage after lig. comes
away, the middle in vein is not resistant
enough to cut and we have but a puncture
of coats, and so much more danger

Suppose have have secondary hemorrhage arising always to to cons Effects or to time of retention of ligature, in large vessels about two weeks in small ten days, always comes away as a loop by progressive or ulcerative absorption allowing it to cut its way through, Many Kinds of ligatures but are made of Saddlers silk use but one color white as dye rots the silk. very Thin to prevent slipping. Ligatures applied in two ways 1st to a free surface and to an Artery in its continuity, In order to apply ligature must see some artery forceps to draw it, Listons Bull dog are the best pocket instrument good for Nothing, Cardinal rule in tying is to draw out the artery, Apt here of not

Irregular callus usually result of mal pract - or want of power of nature - 1. I want to find if soft to yield or resection more recent more for prognosis - 2. If limb is not much deformed or very ~~[illegible]~~ can commence dent operate but if distortion force them endeavor to remove - 3. In resection always make compound fract - and hence the extreme danger - and must all patient may lose a limb 4 - 5 - 6 - 7 sec. Case inst. - pract of inducing callus - has resented 40 or 60 days - can sometimes break up after two months - cant do it - generally ~~can~~ getting down gradually approximating sides - when amplifier may - by mould - has been att. to break down callus & fail hasten off deposit & re fracture then all fails!

Cautery - generally employ actual cautery because seals up vessel without causing slough -
If hemorrhage coming from a deep wound best to use white hot where you wish to ~~use~~ to stop oozing red heat Rosin very good in cases of oozing in consequence of sloughing
Suture - In cases of lengthed wound to preserve the ~~patency~~ ~~stopping~~ the continuity of tube - might be of use in some cases - and by compression slightly diminishing the amount of blood going through it
Plugging - good in some cases where impossible to apply any other remedy - adverse to tie a piece of string - take a longer plug and twine around it -
Seton where there is an ulcerated internal trunk - where art wds not bear ligature use seton
Electro Puncture - By passing an anemonal needle and connecting with pole of galvanic battery.
Always tie up both ends of artery to stop regurgitating current

2nd Indication to get away foreign body
always do this by pouring water over the part
3 - position.

application of Compression wound in axilla - twist for vessel - Large artery in end finger slit small pieces of clot or sponge and fill up wound - The flow of blood will stop - usually where the blood comes out rapidly, often the operator let it remain until suppurated healing by suppuration -

2nd Roller and Compress - made of muslin washed and ironed or other roller of linen not elastic and strips - 3rd Hand of Assistant useful when patient cannot bear the loss of blood or they prevent application of tourniquet -

Tourniquet - of Petit When apply tourniquet pad on when expanded surround limb when apply roller a roller with graduated clamp another Man-artery of leather placed over the compress & screw

Forms of Graduated Tourniquet.

In bleeding by capillaries

Styptics & Absorb - operate by Styptics and mechanical means - Creosote and Cotton stop oozing very quick -

Vaccinating to put any foreign body in a wound to remain in wound any length of time - stop leech bites by pins

MACHURE.

Definition.
History.
Arteries to which it is considered applicable.
Mode of performance.
Objections.

REFOULEMENT, OR INVERSION.

Definition.
History.
Arteries to which it is considered applicable.
Mode of performance.
Objections.

COMPRESSION.

Importance —Useful either as a *temporary* or *permanent* agent.

Points upon which it may be applied.—Either directly upon the bleeding surface, or at some distance from it.

Class of wounds in which it is most useful.—Wounds of extremities, or over bones or firm tissues.

Agents of compression.—1st, compresses; 2d, rollers; 3d, hand of assistant; 4th, tourniquet; 5th, garot; 6th, tissue itself.

REFRIGERANTS.

Cases to which they are applicable.
Agents usually employed.—Cold air, cold water, ice, &c.

STYPTICS AND ABSORBENTS.

Cases to which they are applicable.

Agents usually employed.—Salts of the metals, creosote, sponge, agaric, lint, cobweb, dry powders, &c.

CAUTERY AND CAUSTICS.

Cases to which they are applicable.
Heat at which the cautery should be applied.

Agents employed.—Metallic bodies of different shapes, mineral acids, argent. nit., &c.

SUTURE.

Mode of application.
Cases to which it is applicable.

PLUGGING.

Cases to which it is applicable.

Manner of applying it.—Speak of Sarra's proposition to "plug the artery" in ordinary hemorrhage.

SETON.

Mode of application, &c.

ACUPUNCTURE.

Mode of application, &c.

ELECTRO-PUNCTURE.

Mode of application, &c.

Manner in which the circulation is carried on in a limb, after the obliteration of a large artery.

Second indication.—Having arrested the hemorrhage, the next indication is to *remove foreign bodies.*

Character of these, generally speaking. Should coagulated blood be considered a foreign body?

Manner of removing these bodies.

Third indication.—The next indication is to *bring the sides of the wound in contact and retain them in this position.*

Agents employed to fulfil this indication. 1. Position. 2. Sutures of different kinds. 3. Adhesive straps. 4. The rollers. 5. Splints.

Fourth indication.—Protecting the wound from injury is the next indication.

Agents employed to fulfil this indication. Much more simple at present than formerly. The lighter the dressing the better, when we wish union by the first intention. Cold water dressing. When union by the *second intention of Hunter* is desired, the best top dressing is the "warm water dressing," or poultice.

Fifth indication.—To fulfil this indication, antiphlogistics, both general and local, are usually required.

LACERATED WOUNDS.

Definition.

Causes.

Characteristics.

Prognosis.

Treatment.—General indications.

1. Arrest the hemorrhage when it exists.

2. Attempt, if possible, union by the "immediate or mediate" processes. Mode of dressing to accomplish this. Irrigation and water dressings.

3. When suppuration takes place, promote the secretion by a poultice, or warm water dressing.

4. Keep down inflammation at first, but when suppuration is profuse, support the constitution.

5. When the extremities are involved, the question of amputation may occur.

CONTUSED WOUNDS.

Definition.

Causes.

Characteristics.

Prognosis.

Terminations.

Treatment.—General indications.

1. When the contusion is complicated with a wound of the integuments, close the latter as soon as the hemorrhage (where it exists) is arrested, and foreign bodies removed.

1. By the enlargement of anastomosing branches of the artery this sometimes gives rise to regurgitating hemorrhage -

~~Secondary Wounds~~ - 3 first points always to keep sutures - 2 - suture - 3 - Removal of sutures

Interrupt, twisted quilted and gloves, 1st always pass through without withdrawing it, ~~never~~ let knot fall on one side of line of incision, generally make them ½ inch apart. Where wish to approximate the edges very nicely use twisted suture, insert pins with 3 gutted sutures used to prevent scar being no resulting strain excellent for lacerations in perineum

For this we require a double ligature - never cut offends of ligature - leave them free in order to tighten the quilt when the tissues shrinks

4. Glover Suture - Useful in cuts of small interstices

Air by adhesive straps, these should never be taken off all at once for wound is apt to gape -

Listers straps very good but from their nature they cannot be used except in water

dressing 4. top dressing - Excellent - Rattonp should always be light - In wounds of intestines hot and cold water - but warm in wounds of trunk. the lighter and more simple this dressing the better for patient

5 rd - Sight purge aromatic mixture Morphia tart antimony +

Lacerated wounds - are those that are torn into shreds, to Characterize slight - in want of hemorrhage, nervous shock, contrast no pain; vessels torn to shreds - danger from the decomposing hemorrhage and from tetanus. The pain becomes very severe when reaction comes on. Can hardly ever accomplish union by first intention. Prognosis - unfavorable in consequence of laceration of the nerves and hence the occurrence of lock jaw - The want of hemorrhage owing to contraction of the arteries and formation of clot.

Treatment. Tie up all the vessels & use compress thus as to stop hemorrhage, also unguent to prevent secondary hemorrhage by ligating stump or attempt to unite the edges to the same by sutures - warm or cold water dressing - irrigation &c drain off the blood by position, elevate the part to prevent pain - cut off all the shreds of tissue together - exception, in face, hand, ear, cock's comb, here let out the foot and keep the stump in motion. Don't allow pus to collect when suppuration comes on. Avoid hobbling, small dictum of possible and prohibition combination sets in use must be active anti-phlogistics &c. Carefully observe the cold water dressing in wounds of the abdomen & thorax. If tetanus ~~in what it differs or~~ symptoms appear use Opium, Opium and Potash, upper & lower & lymph & pus

[illegible] of the back and [illegible] of
[illegible] pulse feeble body warm give wine
give wine and wrap in blankets drop lint and [illegible]
it in proper [illegible] situation when he gets [illegible]
pulsations and pulse & tranquil [illegible] off

Contused Wounds. Resemble a lacerated wound
Surgical writers give very confused definitions. Instance
the integument and wounds are certain cases
divided into 3 groups. Prognosis will depend
on kind of contused wounds. Diagnosis
only difficulty the colouration comes on
reddish and [illegible] part turns
1. Ecchymosis. Lividity, red in others [illegible]
and if old yellow & brown spots. Effusion
of blood, absorption changes color no [illegible]
2nd form prognosis is unfavorable. 3rd
prognosis is unfavorable

Punctured wounds. partakes of contused
wounds. are as dangerous as almost of any wounds
if cant feel the needle don't cut for it.
Treatment hemorrhage dry dress the part with [illegible]
poultices.

Penetrating wounds are larger
only more dangerous from hemorrage or
indirect be governed by the cavity in which
it is [illegible]

Wounds (Continued)

Where positive loss of substance
exists under Incised wounds — no hemo
when a vessel has formation is stopped Cover
up possible and if small but dripping
well water spread by Modelling
process — when part cut off part
is not called [illegible]
[illegible] Subcutaneous character does not include

Lacerated Wounds — a — mean one parts are
torn into shreds by blunt body or machinery
glandular &c — C — by vessel hemorrhage a./
by paralyzing artery — cease to extract when the
paralysis is not complete the formation of clot
prevents bleeding — watch however for secondary
hemorrhage — scarcely any pain, the nerves have
been completely paralyzed. Treat air sympathy
between them and brain and hence not pa
L × Attend to vessels to compress &c
R take shreds and lay them carefully alongside
(except in face) and endeavor to get them to
1st intention avoid bandages and ~~compressing~~
sutures — if possible — ^ Antiphlogistics in
wounds of trunk careful in cold & fever
L Extremities — cold or warm water dressing
but not dead pieces because it acts by
× Caution to use warm poultice. begin with
cold water and when suppu — warm avoid
poultices. ⊕ When limb entirely crushed primary
Amputation. If bad compound fracture avoid
cut off all artery pulsate try and save
limb — In very good constitutions and no

Pulsation attempt to save — always wait for ~~pustule~~ for reaction to take place — if takes for a week use phlogistics — don't wait until fever set in —

Contused Wounds. a confused definition some where integuments are not wounded and open — when the entire diff — 1. Ecchymosis 2 Thrombus — 3 to bulk — Rupture laceration of capillary vessels — Diagnosis — Contusion may be conf — will produce ecchymosis every step is punctiform not uniform like injuries ecchymosis — and shaded — In stasis several hours elapse cuticle adherent in stasis not so in death. Thrombus part distended cold and discolored — a large no of small vessels are ruptured infiltration cellular tissue — pulse low — part is soft & swollen —

Treat — 1st to apply wet bottom and wait for reaction — If at 6 or 7 hr — Stimulate by pouring — Tinct Arnica Loop Swallow. Thrombus treat — first unless part almost sloughing — Don't open when bandage and cold water dressing and ice much circulation — if clot increases and pain of suppuration — use the anodyne and ~~[illegible]~~ — Don't touch clot let it come away by suppuration — If there fail to up mend — warm water dressing for clot — or dress b — if inflammation comes on and suppuration open and keep free inflammation — Warm poultice — don't find on warm dressing to unless sloughs

Punctured – a nail made small instrument not very deep – can perhaps except injury in joint bringing on tetanus and death – depend on instrument and shape of wound also – a round nail will make a linear wound but edges are turned in when sharp knife the plane of tissue – everted or inverted – If instrument is turned with fine tray hand – lark – hence large pain – tetanus – sometimes no bad symptoms – Inflammation and burrowing of pus – Don't cut for a needle if can't feel it put a warm poultice when pus comes likely take it out – Rusty nail – foot – danger is tetanic irritation Sooth irritation Keep down general irritation Keep part soaked with Laudanum and water if inclined twitching – Opii Camph – Tart Ant – ext counter irritation on spine – if Opium then Jn – if Edges everted glary fluid re dilute wound – Instead of Lead nitrate silver and warm dressing

2. Keep down inflammation by antiphlogistics, both local and general. Dress lightly, &c.

3. In severe contusions, it is often necessary, at first to *stimulate* the patient, but this should only be done when the prostration is great.

4. After the inflammation becomes chronic, or when the blood is not readily absorbed, use stimulating frictions, bandages, &c.

PUNCTURED WOUNDS.

Definition.
Causes.
Characteristics.
Prognosis.
Treatment.—General indication.

PENETRATING WOUNDS.

Definition.
Causes.
Characteristics.
Prognosis.
Treatment.—General indications.

POISONED WOUNDS.

Definition.
Causes.
Characteristics.
Prognosis.
Treatment.—Depends on the character of the cause.

1. When they are produced by the stings of insects, the remedies are—*cold applications*, *volatile alkali*, *saline solutions* to the part affected; and occasionally *bleeding*, *diet*, and *purgatives* are required.

2. When they are produced by the bites of venomous or rabid animals, the remedies are a *ligature above the wound*, *excision of the part*, *cupping* or *suction of the wound*, *caustics*, *poultices*, and often *constitutional* remedies, according to the condition of the patient.

3. *Dissecting wounds* are best treated by *suction*, *caustics*, *leeches*, a *blister above the wound*, a *poultice or cold to the part*, and constitutional remedies, according to circumstances.

RABIES.

Definition.
Causes.
Time of appearance after the reception of the injury.
Symptoms.
Pathology.
Prognosis.
Diagnosis.
Treatment.

GUN-SHOT WOUNDS.

Definition.
Varieties.
Characteristics.—Constitutional and local.
Wind wounds.—How produced.
Gun-shot wounds usually contain foreign bodies.
Pathology of the wound.
Prognosis.
Treatment.—Several indications. Modified by nature of wound.

1. Attention to general condition of patient at the time the wound is received.
2. Arrest the hemorrhage where it exists.
3. Examine wound.
4. Remove foreign bodies, if possible.
5. Dress the wound. Cold applications should first be tried, and if these fail to afford relief, apply warm or hot.
6. Guard against secondary hemorrhage.
7. Prevent the formation of pus.
8. Prevent inflammation if necessary by *antiphlogistics.*
9. Support the general health, if necessary after suppuration is established.
10. Heal sinuses.

Gun Shot Wounds.

First. If prostrated mentally or Phys-ically bring him out of condition before examining wound. Arrest hemorrhage. Now examine wound place the patient in position when the wound was received - and if large enough examine with finger - if too small or deep examining with the Gun Shot - probe use no violence at all - may open a vessel by it - don't force or bend it a little turn it to find the track - then the removal generally use the forceps if a piece of cloth - great objection to the bullet forceps are too large - we can generally remove except when in bone - If the bullet has lodged in the bone allow the bullet to come out by suppuration if only superficial so that and opening and let out sometime use a Rod & Crop when we cant reach at the orifice, must always have sensation. In doing this remove the foreign body if possible. Sometimes lodged on the other side Make a counter opening when you can find out where the body lies - 2nd If you find the body in a part highly supplied with blood - and you cannot reach it without endanger the large vessels - leave it alone.

The next is to wash

dressing - depends on the situation
of wound - if on the extremity cold
water dressing - if chill come on ~~bl~~
~~bla~~ supply warm, if from or from R
warm and sometimes. Use Antiseptic
treatment - and govern by external
appearance, great danger
of secondary hemorrage - from 11th
to 12th to 12 day. Pain sometimes so less
in - if the dressing be opened - fever
swelling and acute inflammation
set in - begin most active limit & bee
bleed from each hm - give hm
stimulating food and endeavor to
overfication sometimes comes on
supposed very unfav - as gangrene
comes on which ends in fatal
suppuration comes on - and
heal by cutting open sinuses.
If shot were shot - pick out
shot if not covered - Powder
burn &c. Take needle and pick
out all grained powder, lower pts
part with clap and muscles
For pieces of ca - portation.
If one
is pierced by ball to take care hm
try to save him - if contused and if no
pulsation amputate. Also when
parts are crushed.

Characteristic 1 Const. 2 Local - 1. great nervous shock and tremor - 2. Depend on shape of projectile on the density of the tissue wound of entrance always wound + smooth wound of exit lacerated and torn rare and dirty medium - d. dependant on the action of spent ball - e. more or less discharge of blood sometimes profuse hemorrhage - per sattum - indicates large vessel involved - as a general rule pain not so intense - sometimes great pain show great lesion of nerve or important organ - often indicates course of ball. Treat - a unless patient is bleeding profusely always attend to the constitution and if depression stimulate b' - If internal try every thing to stop bleed by taking up main art - ye c' place him in position in which he was when he received wound - If fingers not finger - Gun shot probe no [illegible] if no foreign body d' a gunshot wound is never to be compressed - because it must suppurate as a general wound will heal by 2nd intention - best dressing but dipped in water and held in position by adhesive plaster and oil silk - if in arm cold water must be used stretch as simple as possible - a poultice not good because because it weakens the part it produces debility

constitutional - governed by circumstances
stimulating or sedative - pain
don't use other - give hour apart -
guard against secondary hemorrhage
usually safe to 5th day - from
this 20 to 30 day - watch - sometimes
long after this - in consequence
of the bursting of small art.
pouring out blood and causing
mortification - in wounds of large
artery and tie it or main art
r. / Pus, dilate wound in trunk.
Dilate - in opt - inflammation coming
in and causing engorgement and
some danger - limb distend it
shining

SECOND DIVISION, OR DISEASES OF THE TISSUES.

I. DISEASES OF THE BONES.

General Remarks.
Bones most liable to disease.
Causes of Disease.
Effects on Constitution.
Classification.—All diseases of the bones may be ranged under three heads.
1. The non-malignant diseases.
2. The malignant diseases.
3. Wounds and fractures of bones, and their occasional results.

First head, or non-malignant diseases.

a. Neuralgia.
b. Atrophy.
c. Hypertrophy.
d. Osteitis.
e. Abscess.
f. Ulceration.
g. Necrosis.
h. Mollities ossium.
i. Fragilitas ossium.
j. Rachitis.
k. Tubercle in bone.
l. Osseous aneurism.
m. Exostosis.
n. Hydatid encysted tumor.
o. Serous encysted tumor, or spina ventosa.

Second head, or malignant diseases.

a. Osteo-sarcoma.
b. Medullary sarcoma.
c. Fibrous sarcoma.
d. Fungus Hematodes.
e. Melanosis.

First Head.

I. NEURALGIA.

Diagnosis.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

II. ATROPHY OF BONE.

Definition.

Varieties.

Causes.—1, diseases of various kinds; 2, retardation of structural growth; 3, old age.

Effect upon the strength of the bone.

Appearance of the bone.

Analysis of atrophied bone.

Treatment.

III. HYPERTROPHY.

Definition.

Varieties.

Causes.—1, exercise; 2, excessive nutrition in different bones; 3, inflammation; 4, degeneration of soft deposits upon bone, the result of periosteal inflammation.

Effect upon the strength of the bone.

Symptoms.

Appearance of bone.

Treatment.

IV. OSTEITIS.

Definition.

Question of its possible occurrence.

Varieties.—1. Acute. 2. Chronic.

Persons most liable.

Bones most frequently attacked.

Causes.—1. Constitutional. 2. Local.

Symptoms.

Diagnosis —May be confounded most readily with periostitis and endostitis.

Prognosis.

Terminations.—Resolution, atrophy, hypertrophy, suppuration, ulceration, mortification.

Dissection.

Treatment.—Depends on variety of inflammation, its intensity, and the bone attacked. The remedies required may be either general or local, or both combined.

V. ABSCESS IN BONE.

Location of matter.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

VI. CARIES, OR ULCERATION IN BONE.

Definition.

Confusion among authors as to its precise nature.

Bones most liable to be involved.

Disease of Bones —

In treat bodily fluids that compose the animal parts. Certain bones are more liable than others to get disease, find this to be in rates of organization.

Neuralgia of Bone, nervous take on disease, generally begins in a feeble child an Anemic child — characterized by the part pain not augmented by pressure and not increased by shock not complicated by swelling — and generally an anemic constitution, if inflammation which produce pain — treat frequently give full doses of Iron friction Sulphate, and sub Acetate lead, good diet fresh air exercise — Atrophy want of arterial blood, patient must be constantly exposed to constant posture, Effect of inflammation — result simple Inflammation. Osteitis, Simple inflammation of Bone 2 forms Acute or Chronic — To look at individuals — young — persons most liable also find Spongy bones more liable that with great more active — disease causes into Cons & Scrofula — and more more from Ephil — Confined almost exclusively to particular parts of Sy bones (Tibia) as head — of Scrofula the Spongy bones — Any Bones in Rheumatism Any thing inflam work hereafter.

When bone takes inflammation developed always a particular kind of [illegible] so soon as an additional amount of acid of blood the deposits of earth ceases and the animal matter expand. and when inflam stops the earthy matter is thus deposited. Why is tree bent as it inflammes the bones get softened and the weight will cause bending. It may go in ulceration, necrosis, or [illegible] sometimes abscess diffused as well as simple abscess. Inflam of joints the swelling commences surround parts after the bone gets inflam: the redness is a shining redness - compared with [illegible] one symptom distinc in [illegible] a soft fluctuation tumor always [illegible]. Chronic inflam and set of symptoms constitutional disturbance [illegible], if have a gunshot few [illegible] to some chronic inflam - local inflam very little change in color pain not increased on pressure, if he could describe it will not be inflam = pain treat, position make sleep well at [illegible] to cover [illegible] every [illegible] [illegible] looking leading [illegible] [illegible] to [illegible] the patient and [illegible] [illegible], [illegible]

sometimes will go on to abscess - 2 kind
supposed abscess - and one in a
sac (indication of cash - acute inflam
throbbing shooting sensation - a
throbbing pain instead of burning
pain substitute, a warm poultice or
a plaster - after the pus has made
a free incision and let out the pus
if [illegible] — if overlaid with pus
internal abscess - [illegible] scald
dull aching pain worse at night, pain
without increase under hot spot a
circumscribed pain a circumscribed
abscess - [illegible] bare the bone.

Caries — Ulceration of Bone peculiar
in character depending to yield to acute
antiphlogistic treat, only flat bones
that take place is in skull - most only
in spongy bones - Modified by the
cause, from simple local inflam
localized any where - lymph [illegible]
focal - [illegible] into 3 grades
If inflam study the patient, if open
enough break under - and
patient pain acute, in chronic no
pain, 1st treat by actual break.
Old [illegible] opening pus getting better
old wounds heal but often gets worse
in granulation, [illegible] and [illegible]
nipple - [illegible] [illegible] [illegible]
treat

3rd Stage patient constitution beginning to sink no pain in bone,
1st heat, no matter where it is cup R. at rest - much fever leech warm applic. or cold, attention to constitution 2nd Dont cup or leech apply blist. counter irrita and rest - forcing - alterative medicine - Lapist ulc in 2nd Stage and constition not gone let bone heal, 3rd Stage either cut out the diseased bone Rule or cut off if only one or two bones out. Make resection, sometimes scrape it to Caries from when to stop Probe over its more resistance and sense of bite showing Sometimes Sometimes often pr part only the actual cautery.
Dont apply acids and limit it to sometimes excite inflam. - Condition of caries bone, if get a piece of away & soak in water and dry or put it nitric acid, and if all dissolved bone disease of family -
Necrosis death of bone
Dont mean simply death, what precedes death, Lines first one to [illegible]
Divided 3 Rude external, Internal. 3 Complete - always to continue with. Phenomena depend on (as)

1st inflam - 2nd detached and new bone & healthy returning - 1st to continued with simple astringents, superficial swelling short time ~~bas~~ goes down - Internal and Complete dent occurs - 2nd open ulcer impossible to distinguish unless you probe, be satisfied - if lap it will sing when loose and necrosis - but if comes will not sing - 3rd Stage bone gets well - Suppose have internal portion Killed - 1st thing attract atten. astringents when 2nd stage symptoms becomes more obstinate, pains augmented, must open the bone to save it. The dead portion ~~dead~~ becomes shut up - Complete Inflam very intense & more complex - either to take away limb or bones -

As soon bone dies low left parts the phenomena must cauterize the suppuration, 1st red line demarcation 2nd yellow or white and then dead bone rotten off - owing to the absorbent action separating the living from the dead bone - as soon as dead bone nature forming connection to take its place, dead bone must be taken away -

Varieties —Simple, syphilitic, strumous, malignant, &c.

Causes.—1. Constitutional. 2. Local. The seat of the disease, when *constitutional* causes operate in its production, is modified very much by the *character* of the cause.

Symptoms.—Constitutional and local. Modified by the cause, stage, location, and extent of the disease. Usually three stages.

Diagnosis.

Prognosis.—Often confounded with osteitis, periostitis, endostitis, necrosis.

Dissection.

Chemical analysis.

Treatment.—Both constitutional and local remedies will usually be required, and these must be modified to suit the stage, intensity, and cause of the disease. In the *first stage*, antiphlogistics are usually required. In the *second stage*, emollients or stimulants, to change the character of the ulcer, are generally employed. In the *third*, we must either *cut out the diseased bone*, *destroy its vitality*, or *remove the limb.*

The cause must always be removed, if possible ; and if *specific* in its character, *specific* remedies or alteratives are to be employed.

VII. NECROSIS.

Definition.

Confusion among authors as to its precise character.—Louis was the first to describe it accurately.

Bones most liable.

Causes.—1. Constitutional. 2. Local. Most of these operate through the medium of the periosteum, either *internal* or *external*. Some effect the bone primarily.

Remarks in reference to the influence of the periosteum.

Varieties —1. External. 2. Internal. 3. Complete.

Symptoms.—Constitutional and local. Often obscure. We have usually *three* distinct stages in the progress of the disease.

1. The inflammatory stage.
2. The stage of suppuration and detachment.
3 The stage of reparation.

In *external or superficial necrosis*, the local symptoms, in the *first stage*, are a dull or acute pain, soon succeeded by a flattish tumour, in which fluctuation is after a time observed. The skin next changes its color, ulcerates, and pus is discharged. There is always more or less fever.

In the *second stage*, the swelling diminishes in size, the bone is felt *bare*, *rough*, or *smooth*, according to the nature of the action preceding its death, often rings when struck, and when we can see it is either *whiter* or *darker* than natural. The pus discharged is either laudable or unhealthy. There is sometimes inflammatory fever in this stage, but often we have *hectic*. The bone is gradually loosened and detached by a process termed "*exfoliation*," which is very analogous to sloughing of the soft parts

In the *third* stage, the local symptoms become milder, the constitution improves, and the new bone is formed.

In internal or complete necrosis, all the symptoms are more severe ; and in

the *second stage*, the swelling does not diminish in size so much as in external necrosis.

Process of separation described.

Manner in which the sequestrum or dead bone is disposed of.—Depends upon its being *external*, *internal* or *complete*.

Process of reparation described.—Varies in the different kinds of necrosis.

Character of the new bone and its various stages of organization.

Cloacæ.—How formed, shape, &c.

Prognosis.

Diagnosis.

Treatment.—General indications.

1. Remove the causes.
2. Palliate the symptoms.
3. Remove the dead bone after its detachment, and sometimes detach it with our instruments.
4. Treat the limb, where the entire shaft of the bone has been destroyed, as you would a fracture of the same part, until the new bone is sufficiently firm.

VIII. MOLLITIES OSSIUM.

Definition.
Causes.
Persons most liable to be attacked.
Symptoms.
Prognosis.
Diagnosis.
Pathology.
Treatment.

IX. FRAGILITAS OSSIUM.

Definition.
Causes.
Persons most liable to be attacked.
Symptoms.
Prognosis.
Diagnosis.
Pathology.
Treatment.

X. RACHITIS.

Definition.
Causes.
Persons most liable to be attacked.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

necrosis must always attacks hard & compact organization not complete enough to resist action, an important in diagnosis may be occasioned by any thing that will produce inflammation, can occur during the soundness of the periosteum is fire the ~~pa~~ bone with pus if the periosteum not there, 3 stages. (when bone is thrown off by exfoliation a cicatrix will out a pit - The new bone is always rough and larger, rough parts, where ~~the~~ pus must get out and will plain 2nd made by deficiency of plasma ~~the~~ openings ~~are~~ are large and much more irregular - Probes, if superficial can tell easy by - 2nd stage pass a probe, ~~the~~ instrument will ~~ap~~ ~~the~~ dead from living bone - prognosis always be guarded? for that - Modify your course to circumstances according to circumstances of case, when the life in danger. when the bone is lose, take away immediately - avoid using chisel, the bone is full of blood, and put patient to bed and treat it as a broken bone

XI. TUBERCLE IN BONE.

Varieties.—1. ENCYSTED TUBERCLE. 2. TUBERCULAR INFILTRATION.

Characteristics of first form, or encysted tubercle.

Effects on surrounding parts.

Similarity between encysted tubercle in bone, and tubercle in other tissues.—In bone, as in the lungs, &c., the crude tubercle proceeds from the *semi-transparent gray granulation*, of Laennec and others.

Process of reparation after softening of the tubercle.

Tubercular pouches.

Results of these collections.—1. They may be absorbed. 2. They may cause suppuration and ulceration in the bone. 3. They may serve as the nidus of new tubercles.

Stages in the development and maturation of encysted tubercle.

1. Semi-transparent gray granulations.
2. Crude, opaque, encysted tubercle.
3. Bony excavation, loss of substance in the bone.
4. Evacuation of the tubercular cavity.
5. Hypertrophy of the cyst, obliteration of the cavity, recovery, (Nelaton.)

Characteristics of second form, or tubercular infiltration.—This may exist alone, or in connection with the other variety. It usually presents *two different conditions.*

1. *Semi-transparent infiltration.*
2. *Puriform* or *opaque infiltration.*

Difference between the two.

Effects on surrounding parts.—Invariably causes necrosis of the part attacked, and also produces purulent infiltration. It may also occasion tubercular cysts, caries, &c.

Process of reparation after the bone is affected or destroyed.

Stages in the development and termination of this form of tubercle.

1. Semi-transparent gray infiltration.
2. Interstitial hypertrophy of the bony tissue, or ivory degeneration.
3. Puriform infiltration.
4. Necrosis of the infiltrated portion.
5. Sequestration—foreign body—(Nelaton.)

Diagnosis of tubercle in bone.

Prognosis.

Seat of the disease.

Persons most liable.

Diseases produced by these tubercular deposits.

1. Certain forms of diseased spine
2. Certain forms of white swelling.
3. Certain diseases of the smaller joints.
4. Certain diseases of the inner ear.

XII. OSSEOUS ANEURISM.

Definition.
History.
Causes.
Location.
Persons most liable.
Symptoms.
Effects on adjacent parts.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XIII. EXOSTOSIS, OR SIMPLE BONY TUMOURS.

Definition.
Classification.

1. Those which originate in the periosteum, or sub-periosteal cellular tissue, and may be termed *external periosteal*, or *peripheral.*

2. Those which originate in the substance of the bone, or in its cavity, and may be called *internal* or *parenchymatous.*

3. The *cartilaginous.*

4. The *ivory-like*

5. *General Exostosis* involving the entire bone.

6. *Partial Exostosis*, when the disease is confined to a portion of the bone.

Mode of development of the periosteal tumours.
Mode of development of the parenchymatous tumours.
Liability.—Some bones more frequently attacked than others.
Number of tumours.
Size of tumour.
Color of tumour.
Form of tumour.
Causes of disease.
Symptoms.—Vary with the *cause*, *structure*, and *shape* of tumour, its *location*, and the *rapidity* with which it grows.
Effects on adjacent parts.
Diagnosis.
Prognosis.
Terminations.—1. Resolution. 2. Conversion into other tissues. 3. Necrosis. 4. Suppuration.
Treatment.—1. Medical. 2. Surgical.

XIV. HYDATID ENCYSTED TUMOUR OF BONE.

Definition.
Causes.
Part of the bone most liable to be attacked.
Effect upon the bone.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

Aseous Aneurism - a disease of bone due to pulsating tumor pain begin and develop in spongy bone thus the main artery of fails to cure cut off the limb

Exostosis - are simple bony tumor healthy. are pt take hold & move it about - 2nd may begin on out and grow out outside and growing in - B - 2d described as encondroma, periostial tumor a tumor partaking of nature of cartilage and Bone 4 Peculiar exostosis of thick & thick Bones - 5. described as Osteo - Hypertrophy of Bone 6. partial and which we have generally to cure, in person who has a constitutional tendency to this disease brought on by constitutional, or local Begin on periosteum - 2nd only can be developed by chronic and acute osteitis, and bone becomes soft plasma thrown out and when the convert - plasma becomes bony - Bones face and Pelvis -

Also number of tumors - no limit. to growth of these tumor color importance - have Black yellow but be mass -

Shape as Base off the tumors no way of away

Symp- depend on cause &
1st develope by inflam all Symp
and disappear as case chronic-
after no incon- tumor begins to
grow serious - grows against artery
or nerve when pooles ex tract not
painful giving rise no incon-
these local phenomena. while
prognosis generally fav- place
and circ with alter, Treat - ~~pts~~
Is it growing or station - if sta
dont grow, no incon no pain
let alone - If grows and can't
limit, cut it away - take off
depend on the place if simple
tumor cut away the tumor & bring
the flap - But if complicated Dist
the oper cut off & apply the
actual - cut off base - If large
tumor, should cut off tumor or cut off
limb if very extensive can't cut
off cut off limb. If Parotid a
soft tumor, can cause
the entire removal excite by
inflammation- and supp- and
by ~~take~~ numerous iodine &c

Hydatid tumors so closely resem Spinus of ventosa have one sac — in one in other several sacs distinct and converge in one fibrocellular — sacs encysts the mand ramus — like brough. tumor — Most say looks like Spin and partially inflated & look if contain wind can't have Spinus ventosa, without chronic inflam of retic. tissue, infoles entire bone, sometimes ~~looks~~ devel on side. often developed in Antr by having carious teeth. Why this tumor, pick an opening tissue of Bone, lining membrane soft and secretes a non malignant effusion, as bone expanded the osseic matter is thrown out (perfect smooth, or if rough indentation made by fluid of press it will crack — absence of pain — Treat punct and compress — Antrum pull a tooth or make an open side — if large tumor throw in stimulant by inject — if spurt out fluid and coa not malignant —

Osteo Sarcoma —
Take up some surgery and find laid down medical as very rare and Osteo - non malig - not so - only diff as to stage - the one, the first (second & third in tumor we have fleshy matter and bony - may be due to local cause or constitutional. Occurs in families handed down from gran to grandchildren - usually occurs in young subj - of observe small tumor begins to have pain, gnawing lancinating pain - putting hard skin smooth - strand colo tongue pressed bowels out of order and has grown rapidly soft & soft and hard pieces — feel of obscure fluctuation 2nd stage - 3 Fungus masses throw up - and bleeds slightest injury and then becomes bad & open and white matter [illegible] stematodes. operations cut line delicate muscular cells filled up with certain fluid and varies - and bone only 2nd stage pone nearly all gone - look fresh like cheese like medullary matter.

XV. SEROUS ENCYSTED TUMOUR OF THE BONE.

Definition.
Synonymes.—Spina ventosa, fibro-cellular tumour, wind ball, &c.
Causes.
Part of the bone most liable to be attacked.
Usual situation of the tumour.
Effect upon the bone.
Size.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—Depends upon the size and location of the tumour, and the nature of its contents. Several general methods.

1. Puncturing or simply opening the tumour.
2. Puncture followed by seton.
3. Puncture followed by stimulating fluids.
4. Removal of the semi-solid contents of the tumour, and pressure.
5. Removal of the tumour, or amputation of the limb when it occurs on an extremity.

Second Head.

XVI. OSTEO-SARCOMA.

Definition.
Causes.—1. Constitutional. 2. Local.
Bones most frequently attacked.
Age at which it generally occurs.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—Removal. Amputate at a joint if possible.

XVII. MEDULLARY SARCOMA.

For the characteristics of this disease, see "Cancer."

XVIII. FIBROUS SARCOMA.

For the characteristics of this disease, see chapter on diseases of the "Fibrous Tissue."

XIX. FUNGUS HEMATODES.

For the characteristics of this disease, see "Cancer."

XX. MELANOSIS.

For the characteristics of this disease, see "Cancer."

Third Head.

XXI. WOUNDS OF BONE.

Definition.
Causes.
Bones most usually involved.
Characteristics of wounds in bone.
Prognosis.
Diagnosis.
Process of union.
Treatment.

XXII. FRACTURES IN GENERAL.

Definition.

Causes.—1. Predisposing or remote. 2. Proximate or efficient. The first class may be subdivided into the *local* and *general*.

(1.) The local predisposing causes are—

a. The situation of a bone.
b. The function of a bone.
c. Some local disease.

The general predisposing causes are—

a. The diathesis of the individual.
b. The disease of the individual.
c. The age.
d. The season of the year.
e. Sex.

(2.) The efficient causes of fracture are—

a. Muscular action.
b. External violence, directly or indirectly applied.

Bones most liable to fracture. Refer to statistical tables.

Classification of fractures.

The first division is based upon the relation of the solution of continuity to the axis of the bone. Thus we have—

a. Transverse fracture.
b. Oblique or obtuse fracture.
c. Longitudinal or parallel fracture.

The second division is based upon the appearance of the fracture, which is always modified by the kind of force producing the injury, and the bone involved. Thus we have—

a. Fissures.
b. Stellated fracture.
c. Depressed or indented fracture.

The third division is based upon the displacements of the fragments. Thus we have—

a. Longitudinal displacement, or shortened fracture.
b. Lateral displacement, or displacement in the diameter of the bone.
c. Rotatory displacement, or displacement in the circumference of the bone.
d. Angular displacement, or displacement in the direction of the bone.
e. Impacted fracture.

if macerate 1st Stage we have
made cells - prognosis unfav
if have 1st Stage cure by cutting
out, if wait for second or third
stage, or by amputate the jump
no use to tamper, must
take away page 12

Wounds - Solution cont -
made by shark nest rarely healed
especially flat - push parts aside
and in long thin - very liable to
take on inflamm - symptoms
pistare in bone and pus comes
but more less lacer and contused
~~Dis~~ Prognosis - unfav or - danger
of Erysip inflam, if cut and
fill with blood - coag - colling -
absorb - and fibrin organize
and then becomes cicatrix - Study
the form of Callus, if on flat
Bone union somewhat similar if pus
taken out, clot of blood deposited
and coag - on top of scalp dont
touch it - if dust add, - humor
apply cold or warm dressing lumpe
port grad - fall off cast or pannu
ment - heat - differ from long bones
wounds as bone is fibrin organ
becomes organ in a membrane
very dense - if big want to bone we
must have organ injured

accordingly goes on to cart but 'rare to bone. Local place in position without any sponge draw edges together put limb splint, and look out for inflam 9-out 10 cases Erg - head - Clean - and if large put lint cold water and as soften sponge away and then bring edges strap, and app lint and keep down inf -

Fract, apart from wound fibres sep cart in Fract simple solution of Continu -

a. Bones liable from Cy passed Fit b. fine - opt c - Some local as Cancer, General proc

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a - Acute - nature fail animal matter prepont - centre matter from birth, b. dis - of mod - drum line between a & b - Imp - Leg or Syph - and thus bones more brittle great difficulty in uniting such bone - C, Age, Chemical matter decrease. d - Imp of body always same, e - Female much less liable - Causes - Muscular contrac, Patella most liable, long bone liable - b - counter stroke transmission of shock or direct blow a - Broken across, b. most difficult to manage, C - Rare most difficult

to distinguish produced by gun shot wound. 2nd div. A - Fissure from blow a crack proceeding from it and by a red tender line pus less swelling - and sometimes opposition. b very difficult to manage radiated fract - gun in flat sometimes thick c - dep. Pond. compress - and distort double depress - simp. one edge pushed down on brain - double c - sharp. edge forced down -

displace -

a - bone shot force - by center b. mean cut cases have low prog slip to one side of other - 2nd station - displace in diam - and also by c - produced by cut limb rotating the frag upper diam station lower bone - may have all combined d. gets prac - faulty dress if that one end bone make an angle if great could be prevented

e, the parts thrust into each other - draw the fibre apart overlooked spring wire to splint if bones do pass - must separate other cases

Diagnosis - Bent bone no crepitus can straight but when stop pressure will return to its original position again curve is regular may confound with certain fracture curve other way - often confounded with partial fracture generally by clavicle, the angle is acute but steady the arm and place bone in apposition will remain so - no crepitus treatment same as in in complete confounded with sprain especially in gingly mord character a peculiar sickness comes over him - and no crepitus unless some times 24 hours after accident swelling uniform always treat doubtful cases as true fracture

Prog - age larger more dangerous most uniform in those of femur except in chest - b. where there is a great deal of muscular fibre about them modified the prog with regard to deformity - c near a joint regarding joint as well as bone itself d. relation of bone to cavity as in brain - e. Idiosyncrasy inflam - e extent of injury of soft parts much more danger, where the limb is pulp worse even than compound fracture - always case where the bone is broken by direct force - f direction of fracture as in oblique fracture generally have short limb, always watch patient daily - g the younger the more favorable the prognosis - h - health of patient as in syphilitic habit or scrofula - here always treat the disease - Phosphate of Lime & Iod in scrofula and Mercury or Iod of Potass in

h - In hot weather the irritation causing bad cases and fever - i - Extreme inbolved - with modify more fav in upper - l - more than one fracture more or less fever and bones or abscess from reaction. hence we on guard

and hence antiphlogistic wash have false joint
and omits - m - when bone is in pain - must have
to amputate - one symp - in comminuted fracture
of no pulsation amputate if 4 or 5 days
m - attend to lay at first then treat fracture
generally followed by ~~pa~~ stiffness -
Steps for separation - 2 kinds of union
provisional and definitive called, the former
always taken up - when bone is broken 1st effusion
blood & serum & 24 hours after plasma
1st change absorption of serum & coloring matter
converting the whole into a pultish mass - about
3 day consistance common boiled white of egg
next at 5 day - soft parts and periosteum unite
and the surrounding clot becomes vascular -
and organized 4 - this converted into cartilage
when this is complete the cartilage begins to change
in centre - when this becomes solidified the lines
of compact structure becomes solid - making 6
stage - 1st Blood - pultaceous cartilage -
then the middle becomes absorbed - the definitive
callus is the part remaining between the
two ends of bone - requires from 2 months to one yr
modify by age sex - Sources of callus - blood
necessary comes from - it not necessary to have
periosteum - never saw off piece because it is
gone, though it is the chief agent may get blood
from bone itself lacerated soft parts and but provis
provisional callus is always taken up - occasionally
callus is left from want of power in absorb
sometimes necessary to remove the callus by an
operation - in flat bone union different
rarely have in them anything but dense ligament
occasionally have ~~osse~~ osseous union
Bones are sometimes weaker and sometimes
stronger - generally as strong if fracture

recen through nutritious foramen — for the obvious reason that the nutrient blood is cut off. Great gen principles — 1st careful how you movement may cause his death some in horizontal position — 2 — setting sometimes very difficult — Mechanical measure are extension counter extension and coaptation — the ext and counter ext must pull in line of displacement and force equal and steady — coapt is to accurate adjustment of bone after the bone is set by the natural prominence or bone spasm of muscle with resist must overcome this put patient on other bleeding effusion — and clothes in water around limb — In compound fracture, never cut off the end of bone for sometime if can't succeed saw — occasional the end of bone goes through belly of muscle if can't get out divide in Comp — but in simple fracture Sub cutaneous section —

3 — Indication — rest most important principle calculated to favor union Bandages and Splints which in modern surgery have been much simplified only two kind Bandage ~~from~~ strip Band the two strips overlapping each other used in compound fracture & Roller Splints vast majority made of wood never use pear wood, formerly were iron and steel tardily been employed except to overcome muscular contract very good splint felt splint dipped in shellac gutta percha generally used in fractures about the joint & saturated solution shellac and cloth dipped in it will in course of time becomes as hard as gutta Percha, the splint is never to be applied ~~between~~ directly to skin but always a soft pad between two bran cushion material hell compress perforated always use them or with have slovenly

Causes of displacement.

1. External violence, either direct or indirect.
2. Weight of the body in falling.
3. Weight of the limb.
4. Muscular contraction. Refer to Boyer's remarks on the influence of the different sets of muscles attached to the fragments. When the muscles are paralyzed by the blow, there is often no displacement of the fragments. Nor is displacement invariably present, even when the muscles retain their power. State the cause of this.

The fourth division is based upon the degree of injury done to the parts around the fracture, and to the bone itself. Thus we have—

a. Simple fracture.
b. Compound or open fracture.
c. Complicated fracture.
d. Comminuted fracture.

Symptoms of fracture.—1. Rational or physiological. 2. Sensible or physical. First or rational signs.

a. Pain.
b. Numbness.
c. Loss of voluntary motion.
d. Occasional constitutional disturbance.

These symptoms are never to be relied on, as they are present in other injuries. Second, or physical signs.

a. Change in natural form of limb.
b. Unnatural mobility of the part at the seat of fracture.
c. Change in the length of the limb.
d. Crepitus.

These symptoms are more to be relied on; yet it must be recollected that change in the natural form and length of a limb are present in luxations and sprains, and that crepitus may be occasioned by inspissation of the synovial fluid—the riding of one bone upon another in certain luxations—sanguineous tumours—the motion of tendons in their sheaths, and emphysematous collections. It may also be absent in fracture, or very indistinct. Lisfranc in such cases proposes the employment of the stethoscope in our examination.

Diagnosis.—Fractures may be confounded with—1. Luxations. 2. Bent bones. 3. Partial fracture. 4. Sprains. State the characteristics of each.

Prognosis.—Depends on a variety of circumstances. It is modified, for example, by—

a. The size of the bone.
b. The number of muscles attached to the fragments.
c. The seat of fracture.
d. The relation of the bone to one of the great cavities.
e. The extent of injury to the soft parts.
f. The character of the force producing the fracture.
g. The direction of the fracture.
h. The age of the patient.
i. The health of the patient.
j. The season of the year.
k. The extremity involved.

l. The existence of more than one fracture.

m. The degree of injury to the bone broken.

n. The existence of a luxation along with the fracture.

The process of the reparation of fractures, or the formation of callus.—Two kinds of callus.

a. Provisional, or that which serves the purpose of uniting the fragments for a time, and is then removed.

b. Definitive, or that which unites the fragments permanently.

There are several stages in the organization of callus which deserve attention. We have—

1. The effusion of blood and lymph.

2. The absorption of serum and the coloring matter of the blood, the inspissation of the lymph, and the union of the soft parts.

3. The conversion of the lymph into cartilage, which forms a distinct *pin* in the cavity of the bone, and a *ring* around the seat of fracture.

4. Ossification of the cartilage in the spongy tissue of the bone.

5. Ossification of the cartilage between the compact portion of the fragments.

6. The removal of the provisional callus, and the restoration of the cavity of the bone.

Time required for the formation of definitive callus.—Depends upon a variety of circumstances. Usually in adults, and in large bones, from eight to twelve months are requisite. The limb, however, is useful long before the process is completed.

Agents concerned in the formation of callus.

1. The periosteum. Not essential, though highly important in the formation of bone.

2. The vessels of the adjacent soft parts.

3. The bone itself.

4. The internal periosteum.

5. The absorbents which remove provisional callus and model the bone.

Mode of union in flat bones.

Strength of bones after the fracture is cured.—They are sometimes *stronger*, at others *weaker* than natural. The location of the fracture as regards the nutritious arteries, and the activity of absorption, are the modifying agents here.

Treatment.—General indications.

1. The mode of moving patients in severe fractures from the spot at which the injury occurred, is a matter well deserving the attention of the surgeon.

2 As there is usually displacement of the fragments, "*reduction*" or setting will be required. This may be effected by *extension*, *counter-extension*, *relaxation of the muscles*, and *coaptation*. We are often resisted in the accomplishment of this indication by *spasm of the muscles*, *binding of the soft parts*, *and binding of the bones*.—Mode of overcoming these difficulties explained. Value of myodiatomy in these cases discussed.

3. To prevent a recurrence of the displacements, *mechanical means must be applied*, and the part guarded against all motion. This indication is occasioned by the employment of *rest*, *favorable position*, *bandages*, *compresses*, *cushions*, and *various apparatus* or *dressings*.

4. As inflammatory symptoms may supervene, measures must be taken to prevent their occurrence.

Causes –

a – External violence, attend to kind force. 2. weight of body bones not much hurt but fall disturb frag. ask were stand – what dire do fall – and fract will depend on way fall. 3rd wt of limb, pay attent to posit of limb – 4. overcome the action of muscles and retain –

4th direction fract –

a – injury to soft parts –
b – Open flesh
c – injury large nerve or blood vessel
d – bone exposed exp the

1st Ration

a – More or less pain
b – numbness
c. loss motion under circum not always some time – unfract fract – not lost
d – mem fever after

Physical

a. the part some bent – incl chan
b, bend in any direct you chose prel –
c. Part shrt. d rep – by subtrac
exists a sound – never forget
may exist no fract very obs

may be confounded with. 1. 3 & 4 Sols
in Lux joint near joint - Cant move
fore and way - Crep. in fract.
2nd dislocation exist between bone
and fracture, crep may come be
not so only young bone bent
humble fibre of wood - return
also sap - tube 2 and 5 & 6
can occur among any fibres
and fractures of arm, don't comp-
bone bone bracken. Suppose
3. Ex 7. 13 & 14 instead bone bend
or snapp - Partial have
don't break altogether heal then
in some cases animal mad
so complete gone occur
middle age or old certain
age's cert fract. recover
from age. end fract. diff
bet bone and partial may
cure without crep - 2nd more
pain and crep when bring
the hand, one may cure and
second certainly.
4. Especially if about joint,
injury about joint can't be too
cautious, treat injury Specific
joint. Did a fracture, treat same
for sprain - take care
elbow - wrist

look pres, falling wrist hand – twisting
hand – prob. no fract. Char. Swelling
in Sprain comes on gradually and
comes on pain very Peculiar – if
~~comes~~ absence of crep – if. Sprain
no crep – bone move, first can
move if Sprain not so in fract.
Prog. notes – a – larger bone
greater difficulty, and great risk
deformity. b. more muscles contract
draw up lower fragm contract
c. if in vicinity joint more impair.
d – fract of bone damper pressure
on brain – little consequen
f. frag must driven down and
contusion. only fracture direct injury
left part lower l
g – many case calluses imp to
keep edges together. more displacem
more impair –
h. the younger more force
i, if have typhoid no union
until bysch treat, some
say pregnancy – present
not so.
j – much easier in winter drink
have heat to suffer not
any modifying influence season
k. much easier in upper
by brandy water lower

1 - as for the clavicle is very difficult of injury with other
on luxation of bones
1st Effusion of blood - in cavity of Bone -
2. pure pus Ring Brass bons of boiled white of egg - loose clotting matter plastic basis callus
3. cartilage soft nearly pure nucleated cell
4. red specks white centre out side and in gown flowing in compact bone out in soft middle
5. definitive callus from union provisional callus
sometimes nature cant take up callus known wrong - lowered apts.
1st never cut off bone because no periosteum. one chief exists flat bones generally unite by pus - cure only effusion of - vital organ can unite in dura membrane - cautions how use when the part in from water. often stronger - as by union of two bones prov. ~~callus~~ cant, always such case not at 3 week vibration move

Treat - Object to make the bones unite without any deformity may occur however,

1st Keep bone at rest - Care in moving attent to it - may thrust bone through skin no reduction - hold one shoulder down - 2nd Extension counter &c. free applied feather from trunk, and counter, near the trunk, free signal - gastroenemii apply tape dis engage foot and fingers along - don't squeeze - adjust with great care, spasm, put by Morphia and give pat better give him opiate or bleeding take care how bleed - some fibre bone - pads bedding and docks with, have bones over-lap - only rest Never give chloroform

Handers the part with Bichloride of Mercury 5gr to oz - 4 - Tart Ant opium. In dressing this gives take care not to bleed - for fear of stopping plastic powers of the blood. 5 - Spasm the best thing known is ether good anodyne is next best. if pain continues proof that something has been employed wrong - if pain is pulsatile and throbbing it is proof positive that something wrong, undressing if the point left out to see and if it be cross painful and cold take off dressing 7.

8 - Simulated malfoccation - nerve only from stasis of circulation - if the

pulsation goes on and all is right keep up the dressing, puncture them but be very careful not to take off the whole cuticle may have a ulcer - If suppuration will come on must let it out can't help it - 10 - If man with broken bone hardly ever wishes to use the limb, generally about 8 week wishes to get up - must support the fract or will have secondary fracture, in some cases Epsom stimulates the absorbents so much that that the whole callus and limb broke again in such cases cannot do anything guard against them them - 11 - Tell the patient that will have this stiffness or he will blame you use the proper measures to relieve it by stimulating applications oleaginous lotions & passive motion - 12 - Set except in Compound fracture - the inflammation and swelling not withstanding - position not so important to use position in upper extremities as it is in lower - immovable apparatus - very old Celsus tip - a roller bandage saturated with white of egg dissolved in alcohol used to envelope the whole limb - Starch and dextrine now usurps the place of white of egg, dextrine dries very rapidly - If determine to treat by the immovable appa take the splints put in warm water bandage limb fill up the inequality with cotton and put on splints wrap them down and this make a box a bad method in consequence of swelling & producing mortification again band will get loose some prepare to cut down and lighten band as you see band had gives way so low

5. Spasm and pain often occur after dressing, and these symptoms must be relieved by anodynes, cold or warm irrigation, sometimes by changing the dressings, and occasionally by bloodletting. Be careful, however, not to deplete too much, as callus will not be formed unless a certain degree of excitement is allowed to take place in the seat of fracture.

6. In applying the dressings be careful to protect parts liable to pressure, or that seem chafed or swollen, by *straps*, *cushions*, and *proper position*.

7. Carefully inspect the dressings daily, but do not disturb them so long as they are steady and properly adjusted.

8. When phlyctanæ form, carefully puncture them with a needle, but do not allow the cuticle to be removed.

9. Should superficial or deep-seated suppuration ensue, it must be treated on principles already laid down.

10. During convalescence the patient requires strict attention in order to prevent the occurrence of "secondary fracture."

11. After callus is formed, the parts, especially the joints, remain rigid. The indication here is to relax this rigidity by *friction*, *passive motion*, *warm douche*, *vapour bath*, *electricity* and *galvanism*.

12. Finally, *set the fracture* as soon as possible. Do not wait, as some advise, until swelling and inflammation have occurred and subsided.

General methods of treatment:

1. That in which the limb is kept extended in the *horizontal position*.

2. That in which it is maintained in the *semiflexed* position.

3. That in which it is encased in some *unyielding* and *permanent* dressing, as the "starch bandage," or plaster mould. This dressing is sometimes called the "*immovable apparatus*."

4. That in which the limb is *suspended*. This method is technically called "hyponarthecia." It originated with Sauter and Mayor.

5. That in which the dressing is composed of handkerchiefs, variously folded. This method, from having been introduced by Mayor, is called "Mayor's handkerchief system."

6. That in which the ordinary splints and bandages are employed.

Review of these different methods.

COMPOUND FRACTURES.

Definition.

Causes.—1. The fragments of bone may be driven through the skin.

2. The integuments may be wounded by the body causing the fracture.

3. Sloughing may open the integuments.

4. An abscess may form and open.

5. Finally, pressure upon some projecting point may cause its ulceration.

Dangers.—1. Immediate shock to the system, from injury to the nerves, or from loss of blood.

2. Inflammation and fever.

3. Hectic fever.

4. Tetanus.

Question of amputation.—When called to a case of compound fracture, we are first to determine between the propriety of amputation, and an attempt to save the limb. No fixed rules in regard to this operation can be laid down, but we must take into consideration several points.

1. The age of the patient.
2. His constitution.
3. His habits.
4. His position in society.
5. His means of obtaining proper nursing, food, &c., during the treatment, if we attempt to save the leg.
6. The season of the year.
7. Atmospheric peculiarities.

Circumstances supposed to warrant amputation.

1. When the injury done to the soft parts and bones is such as to warrant the impression that gangrene will inevitably ensue.
2. Where, along with the fracture, a portion of the limb is torn off, as we see in wounds inflicted by machinery, cannon shot, &c.
3. Where the soft parts are extensively stripped off.
4. Where the fracture extends into a larger joint.
5. Where the bone is broken in several places, and the soft parts extensively injured.
6. Where the fracture is complicated with laceration of large bloodvessels and nerves.

Before resorting to amputation, even under these circumstances, weigh well its dangers.

Time at which amputation should be performed.—Difference of opinion among surgeons on this point; some preferring *immediate*, others *secondary* amputation. It would appear from the reports that in *civil* practice the latter method has been most successful, while in *military*, the former is most to be relied on. Many cases, however, admit of no delay, even in civil practice, and the surgeon must let experience determine the course to be pursued. Never operate until reaction to a certain degree has taken place.

Treatment where it is determined to attempt the cure of the injury without amputation.

1. *When the injury of the soft parts is comparatively slight.* Here we must close the wound at once by straps, the bandage, lint soaked in blood, or lint covered with oil-silk; apply splints, or the proper dressings, and treat the case like one of simple fracture.

2. *When the injury of the soft parts is more extensive, and the bones protrude and overlap, and cannot readily be reduced.* Here divide the soft parts, pick away any loose pieces of bone, and, if necessary, saw off the ends of the bone. Then apply a *loose* bandage of strips, place the limb on a pillow in a fracture box, or upon a carved splint, and use irrigation with cold water if the weather is warm; or, if the accident occur in winter, we may use the warm water dressing or a poultice. It is in this form, also, that the *bran* dressing of Dr. J. R. Barton is so useful. *Constitutional* symptoms are to be prescribed for.

3. When, in spite of all our efforts to prevent it, *profuse suppuration* takes place, we must give free vent to the pus, and support the constitution.

4. After the subsidence of *swelling*, *suppuration* and *severe pain*, treat the case like a simple fracture, with splints and bandages.

5. Where our remedies fail to relieve, and *mortification* sets in, we must amputate if possible.

1. 2nd column
Bruising.

2 Extension and counter extension always = Muscular spasm - do not pull against when can't reduce in this way use ether Bleeding Tobacco and thus relax whole system. Bending of soft parts resort to every thing before using Knife divide the band by subcutaneous section. Bending of bones - the wedging of fracture stones. Saw off the ~~by~~ end of bone and tell patient that limb will be shortened.
Third Indication. To prevent recurrence of displacement. 4. Of constitutional disturb - if have fever don't bled if can possibly avoid, as we thus remove the plasma, and even non union - reduce by neutral mixture, tart Ant, pleng, Diet him - 5. Spasm & pain * best thing is ether to relieve pain. or Opii until spasm is arrested - 100 drops of Laud - simply altering position of muscles 6. Interpose cushions with bran best 7. never disturb bandage so long as it holds and patient can bear it. 8. phlyctanæ - leg or limb will be black and blue and vessels look at general condition. puncture and be careful not to tear off the cuticle, and apply arnica lead water on lint

9. In sup - let out joint as long as can
10. Never let patient use limb too much the callus being soft is absorbed by stimulus of use in case use thus a protecting splint 11. perform passive motion at first dressing bend all joints when practical stiff wound back
12. get as soon as possible
B. 1. Inconvenient in fractures of upper extremity 2. will not apply always. but often is indicated. 3. very old, very improper except during convalescence object 2. cant see and 2 - dont expect on acct of shortening. 4. dispnea nonsense. 5. so all fractures is probably very good sometimes, 6. Only general method is proper to employ —

Compound fract.

Difference between comp fracture by ulcer and one where made by knife or bone as granulations follows the ulcer and thus stops the access air 4. abscess, the granulations are flabby and fail to unite and thus give the worst kind of comp fract

Dangers - 1. shock on nervous system and owing to size of bone 2 - may die in comp part of thigh from this alone

2. Tom Inf - a Fever when pons is red and glaring fluid, and most rac. most active constitutional sim risk of non-tension of one in order to keep tension before drop from Imp Fract - 3. Hectic fever patient in great danger - can't remove it unless by amputation nearly always - try drp Stim - and local Const - act! Ant. if can't do it cut off limb -

4. Tetanus, look for it early - gen about 3 day - if wound wont heal and much nervous shock danger alone - symp - pain in epigastrium - spasm muscles on throat and convulsions, give opii ad libitum - Opii Camp Hyd Sibn -

If touch gums with mercury generally save his life than begin with mercury 99 out of hundred drop die in spite of every thing - Again Secondary hemorrhage - don't tie up artery - suck if possible for bleeding vessel pass ~~vessel~~ finger of full pulse ~~and~~ open with knife and tie up - if this cant be done use styptics and compression lint in powdered rosin and tied on with bandage - If all fail must tie up main art but if most comes on

amp as soon as possible. Exp-
ynection asked by Doct in Chose
pact — Ampt — Guest — 1st age
young recover better than old —
if child young man. healthy
adult — there great prob of safy
if 4 3 generally better to amp
2 — If have syphilis — scrofula
sickly constitution; must run
risk of 1. 3. If sedentary gluton
drunkard — with generally dis
must cut off limb is his best
chance — 4th If can obtain attent
try save limb — better to amp —
6. If some hot — and lower out
serious comp — and if have other
things against him better to cut off
pus Guy — Circum warantis
amp — where have every chance
for in Comp pact of might
endeavor to save limb — but guard
proc — for 99 ch against — having
decided to amp when take
best to do it as soon as the
reaction has come on — give
stimulant Cheerful Conversation
&c — when pulse gets up — the
operate. give Anaesthetic — in op —
If Endeavor to Save Limb
1st Ind — convert Comp. in Simp
pact — Close wound — put lint
over wound and paint over
with Collodion —

2 ways of dressing a fract.
place limb in prop. position
Ins. Comp fract of lyt. Comm
bof sides let out put a pillow
on cover with oiled silk and
putting leg on pry up ~~leg~~ sides
and tie foot to foot board and
support heel (fracture box &
pillow) to stop inflam. Rub
wet limb dont let fever
come on. If comp with swelling
after ~~1st~~ dressing use band of
strips used only when ankle
and in comp fracture. Another
is bran dressing Ray Bart
here cover up with bran and
wedge it in. also catches the
fluids and they swelling with
compress — the limb. In course
of ten days to remove bran — but
touch limb — have 2 assist steadying
of limb. gradually move ~~limb~~
bran from one side and interposing
clean — man on other side. When
wound close swelling go down the
bones ~~[illegible]~~ change
dressing — and change of
limb — will obviate bed sores —
mortification does set in cut
off invariably

Irregular Callus
Causes - giving write with dermoty-
sometime bent sometimes complicated
Before answer question.
1st in most of injury be decent can
remedy - longer due - more unfavorably
2nd If can use limb without pain
let alone - unless necessary, if fract
of limb be dist or destroyed better
to perform the oper, resection when
operated sometime
3rd Be cautious in bone if thigh
not if humerus fair prognosis
4. Larger more unfav
5. Age young better
6. If function body destroyed,
don't touch him take pt body
in good condition
7. In summer, heat gives
great uncasiness
8. Suppose bone has disease or sem
let bone wait till bone sound
Means how remove
1st depends upon duration
of injury - often cure cases
readily, always in 6th weeks
don't resect until try compress - put
in box to suit case.
2nd Some seton instead of healing
with excite deposit never use it
3rd Rupture, attempt where both
bones are joint treated only one two

 turn back Page 24

Character of the callus in compound fracture and the agents employed in its formation.

COMPLICATED FRACTURE.

Definition.

Causes.—The fragments may be thrust through large vessels, or nerves, or into joints: or the force producing the fracture may cause their injury, or occasion luxation.

Dangers.—1. Immediate shock to the system from loss of blood, or injury of the nerves. 2. Sloughing from infiltration of blood and serum. 3. Mortification from loss of nervous influence. 4. Permanent paralysis of the limb. 5. Phlebitis. 6. Hectic fever. 7. Tetanus.

Question of amputation.—No general rules can be laid down, but the circumstances already stated as modifying our treatment of compound fracture, should always be taken into consideration here.

Treatment.—Varies with the complication.

1. Where we have profuse hemorrhage from a wounded vein. Bleed, apply cold, and pressure, and afterwards frictions and pressure, to cause the absorption of the blood; occasionally a ligature will be required. Be careful to prevent phlebitis.

2. When we have hemorrhage from a large artery, characterized, where there is no external wound, by a tumour pulsating at first, apply a ligature *above* the tumour, and do not as a general rule open the integuments and seek for the artery as advised by Boyer. When the collection of blood is so great as to threaten sloughing, then open the tumour, evacuate the blood and tie the vessels. When a wound in the integument exists, we may sometimes dilate it, and thus tie the artery above and below.

3. When a large nerve is torn across, which is manifested by paralysis, numbness, pain and spasm of the limb, we must bleed, place the part at rest, apply leeches, cold or hot applications, and give anodynes.

4. In comminuted fracture, complicated with a wound in the integuments. We must take away splinters, *provided* they are not attached to the soft parts. Close the wound and treat it like a bad compound fracture. When the bone is crushed to pieces, it will generally be proper to amputate.

5. When a luxation complicates the fracture, always protect the fracture by some firm dressings, then reduce the luxation as speedily as possible, and afterwards set the fracture and treat it according to the rules laid down.

6. When the fracture extends into a joint, we have to fear intense inflammation, and must treat the case accordingly.

7. When mortification takes place amputate.

8. When tetanus supervenes treat it in the usual manner.

IRREGULAR CALLUS, OR FRACTURE UNITING WITH DEFORMITY.

Causes.—Usually, neglect or bad treatment of the case, or the wilfulness of the patient, are the immediate causes of deformity.

Question of the propriety of interference in these cases.—Many points must be considered before the operation is undertaken.

1. The duration of the injury.

2. The degree of functional injury resulting from the deformity.

3. The practicability of relieving the deformity without endangering the life of the patient.

4. The size and location of the injury.

5. The age of the patient.

6. The health of the patient.

7. The season of the year.

8. The existence or not of disease of the soft parts or of the bone itself.

Means employed to remove the deformity.—These vary with the duration of the injury.

1. *Pressure and extension of the limb.*—When called to a badly set fracture, within the first *sixty* days after its occurrence, or while the callus is yet yielding, we may often succeed in restoring the limb by well regulated *pressure and extension of the limb.* Cases are reported by Dupuytren and others, in which these measures have succeeded even after the lapse of the 120th day from the receipt of the injury.

2. *The seton.*—In these cases Wienhold proposes the introduction of a *seton*, which by causing suppuration would break down the callus.

3. *Rupture of the callus.*—If more than sixty or seventy days have elapsed before we are called, as a *general rule rupture of the callus* will prove more useful than any attempts to mould it into proper shape. This is an old operation, and has been recently revived by Œsterlen, Richerand, Dupuytren and others.

Cases to which it is applicable.

Dangers of this operation.

Preparation of the patient.

Mode of rupturing the callus.

After treatment.

4. *Resection of Bone.*—In cases of long standing, where the bones overlap, and are firmly bound to each other, *pressure*, the *seton*, and *refracture*, will all fail to afford relief, and we must then resort to "*resection of the bones.*"

Dangers of this operation.

Preparation of the patient.

Mode of performing the operation.

After treatment.

5. *Removal of exuberant callus.*—When spiculæ or ledges of bone are thrown out around the seat of fracture, and interfere with the motion of its parts, or occasion pain, we may, after waiting a few months for the efforts of nature, cut down upon them and remove them with the knife or saw. (See cases of this deformity reported by Alcock, Velpeau, Dawson, and myself.)

PSEUDARTHROSIS, FALSE-JOINT, OR NON-UNION.

Definition.

Frequency of the defect.

Varieties.—1. Where the fragments are united by *soft callus.* 2. Where the fragments are united by a *ligamentous band* or *bands.* 3. Where the fragments are united by *cellular tissue* alone. 4. Where a *sort of joint* is established. The bones being rounded off, tipped with cartilage, covered by a synovial membrane, and held together by a capsular ligament. Very rare.

Causes.—1. Constitutional. 2. Local.

First, or constitutional.

a. Syphilis.
b. Pregnancy and suckling.
c. Fevers of different kinds.
d. Cancer.
e. Fragilitas ossium.
f. Scurvy.
g. General impoverishment of the system.
h. Paralysis.
i. Deficient supply of arterial blood.
j. Advanced age.

Second, or local.

a. Frequent motion of the fragments.
b. Separation of the fragments.
c. Disease of the fragments.
d. Interposition of foreign bodies between the fragments.
e. Tight bandaging.
f. The long continued use of cooling applications.
g. The too early use of a fractured limb.
h. Division or stripping off of the periosteum.
i. Want of cellular tissue.

Symptoms.

Diagnosis.

Prognosis.

Object of treatment.

Treatment.—Various methods have been introduced.

1. Simply keeping the parts in splints for several months.
2. Friction.
3. Compression.
4. The application of caustic alkali to the integuments over the seat of fracture.
5. The introduction of a heated canula between the bones. Proposed by Mayor.
6. The seton—proposed by Dr. Physick. Modification of this agent by Rhynd.
7. Escharotics applied to the ends of the bones.
8. Removal of the extremities of the fragments.
9. Section of ligamentous union.
10. Section of muscles attached to the fragments, coaptation, and friction or pressure. Proposed by Dieffenbach, in false joint of the olecranon, patella, &c.
11. Acupuncture.
12. Electricity.
13. Blisters.
14. The use of iodine or mercury.
15. The metallic ligature of Sommé.
16. The actual cautery. Employed by Kirkbride and others.
17. The introduction of ivory pegs.—(Dieffenbach.)

DIASTASIS OR SEPARATION OF EPIPHYSES.

Definition.

Age at which the accident occurs.—Varies in different individuals. May take place at any age previous to that at which the epiphyses become attached by bone. This generally occurs before puberty.

Causes.—Violence or muscular contraction.

Symptoms.—Obscure. Unnatural mobility at the seat of the epiphysis is the most important sign.

Diagnosis.—May be confounded with *fracture* or *luxation.*

Prognosis.—The injury, if properly managed, rarely results in deformity; if neglected, the person is almost sure to be crippled.

Treatment.—Depends of course on the seat of the lesion. The general indications are nearly the same with those laid down for our guidance in the treatment of fracture.

PARTICULAR FRACTURES.

I. NASAL BONES.

Liability.

Causes.

Varieties.

Complications.—Concussion of brain; emphysema; injury of lachrymal duct and canal; fracture of cribriform plate; inflammation, and caries or necrosis of the bone.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

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II. MALAR BONES.

a *Liability.*—This accident is very rare.

b *Causes.*

c *Varieties.*

d *Complications.*

e *Symptoms.*

f *Diagnosis.*

g *Prognosis.*

h *Treatment.*

III. SUPERIOR MAXILLARY BONES.

Liability.

Causes.

Varieties.

Complications

Diagnosis.

Prognosis.

Symptoms.

Treatment.

IV. INFERIOR MAXILLARY.

Liability.
Causes.
Parts most liable to fracture.
Varieties.
Complications.
Symptoms of each of the fractures of this bone.
Diagnosis.
Prognosis.
Treatment.—Depends on the seat of fracture.

V. OS HYOIDES.

Liability.
Causes.
Varieties.
Complications.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VI. THYROID CARTILAGE.

Liability.
Causes.
Varieties.
Complications.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VII. STERNUM

Liability.
Causes.
Varieties.
Complications.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VIII. RIBS.

Liability.
Ribs most frequently broken.
Parts of the bone most liable to fracture.
Causes.—External violence. Muscular contraction, as in coughing.
Varieties.

Complications.—Hemoptysis, emphysema, pleuritis, empyema.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IX. CLAVICLE.

Liability.—Its *shape, size, texture, exposed situation,* and *function,* render this bone liable to fracture.

Parts usually broken.

Causes.—Direct or indirect violence.

Varieties.—Complete, incomplete, simple, &c.

Complications.—Paralysis of arm, injury of axillary plexus and vessels. (Earle.)

Symptoms.

Diagnosis.

Prognosis.

Treatment.—Various dressings employed to carry out the *three indications* of Desault. 1. Desault's bandage. 2. Boyer's bandage. 3. Mayor's handkerchiefs. 4 Fox's Apparatus. 5. Brown's bandage. 6. Dr. Reynell Coates' bandage. 7. Hiester's dressing. 8. Sir A. Cooper's.

X. SCAPULA.

Liability —Its site and mobility protect it in a great measure from fracture.

Parts most liable to fracture —1. Acromion process. 2. Inferior angle. 3. Body of the bone. 4. The coracoid process. 5. The spine. 6. The neck.

Causes.

Varieties.

Complications.

Symptoms.—Depend on part broken.

Diagnosis.—Depends on part broken.

Prognosis.—Depends on part broken.

Treatment.—Varies with the seat of injury.

XI. HUMERUS.

Liability.—According to Longsdale, fractures of this bone are proportionately less frequent than is usually supposed—about one-sixteenth of all fractures.

Ages at which it usually occurs.—Childhood and old age.

Parts of the bone liable to fracture.—1. The head. 2. The anatomical neck. 3. The surgical neck. 4. The epiphysis. 5. The shaft. 6. The condyles.

Causes.—Muscular contraction, direct and indirect violence.

Varieties.

Sup more elapse either resect or break again. and setting corp - If health good - break - If make any prob use assumpt. Take fore arm and draw over knee never do it, after 4 or 5 months. in old cases must resect - Jar of use at Ans - If cart - an edges always cut up the top:

5 - Sometimes gives us a hydrate tumor, very some give most int pain - Open saw rasp or clip - Motion False joint

Dig. 1st begins in blood and develops into cart osseo-cartilage joints, patient use very - perfect folly to endeavor to cure. 2nd In patella as a thin layer or lig - Joint injured and crippled. 4th In old people blood thrown out not connected - only in cellular tissue

4. Bones resting one other, whole surrounded hyaline establish top cart, and head formed and lower unmoulted cupped

Symp - very plain no voluntary power but great mobility this case where cellular tissue - Pale sucked motion resist - and will be larger in leg no cart -

Proposed - Don't be too certain - a false joint anywhere most tedious unless the patient will submit to treatment -

Treatment – all methods intended to excite a new action and throw out plasma cells open in this way.

1st very good be surprised – perfect test nearly always cure if case recent

2nd after having Reps don't get hand and stiff. take hold upon prognosis

3. Reason –

3. don't want tight lateral, want compressed squeezing ends bone fracture, only recent can be always by those which the part use some

4. Some lay open and use Caustic as confidence – 1st. another a trocar canula, with kill the part & Bist the seaton introduced by long needle pass take between end bone – Cant do it in Ball & Sock Chin in collision – most imp. long nice pass don't take out, until parts get hard, all give great credit.

7. Turn out ends bone cut off and touch both each – sometimes sulled

8. if bad useless lumb lo it if can get along case don't let be sometimes fail

pass over some

11. Rib in Bone fragile body gives diseases – lay open wrote hole put in plug of Ivory – and take the pegs with wire – Bones always

Fracture

Fracture frequent comp - with fracture nasal bones -

always force directly upon bridge imp - because always nearly causes displacement - sometimes with not fracture, dech only on side - no diff if called immediately - on acc of swelling - and also from air in cellular tissue - fell along bridge of nose - have pain tenderness and great swelling - Comp - bleeding - If fract made manip in course short time become comatose have all symp - of pressure compression - of brain by the Crista Galli - often stunned, may happen without any very serious, always immediately complicate diagnosis - great swelling portmous crackles under pressure indicates, Schneiderian membrane torn across - often have fragment driven ~~under~~ into ductum and nasal - porpoisis - is here very unfavorable sometimes caries and necrosis will come on, one thing often occurs and mistake for fract the displacement of cartilage treat - simple without any comp - we need place plug lint in each nost to stop bleeding when hemorrhage

case take away - if Kleiter
bend him - suppose pay ment
down down - put gauze up
and gently ad just them by
finger out side - treat anti sh
suf broken in to pag - if bones
detached from periosteum, if
not let them alone - put in splint
elevate, supp have emphysema -
take battery and puncture
the tumor in some place where
can't be seen

Malar bone -

very rare only own direct force
If simple not much swelle
fed - If great have bone
centre of cheek dragged down
by masseter - put common band
and - in comp - put finger
and thumb, and press in place
till by continuity of orbit

Super Max

sometimes have on inferior
portion - and can be seen open
or by butter or cure - passing
between cheek bone - way
of dental arch - if no
displace put on band - if
comp - push jaw up - and
keep lower jaw - if no
teeth put cork in mouth

if an inflam arts phrly
lock bone if teeth be loose don't
pull out espec - if membrane
pain be not torn.
Often mag - very difficult
may be prac Mettigen Oppn and
any - in arm and leg - and
in young but in symp -
If have mult fracture - in two
places. between ang and canine
and on each side. Symp
Symp displace - pain tumor
and urg by arch into great
secretion of fracture. Seat by.
Simple fracture, occur
between symp and angle
1st look kind of fract overcome
action of muscles - or have difficult
must push up lower and let
unite - either with simple roller
or gaunt bam - may have
splint - model to fit splint
off to assist pain don't use
brackets make asp -
put a piece of cork if teeth
defd if loose push down
fr let splint
2 - Suppose comp - fract - drop
numbness - false - must have
a perp splint - by some thing
go up to zigomatic p

Condyloid
3 - ~~[illegible]~~ if open mouth block
chuck - in front can have a process
bone - and up-pray Glossian up
and low station. pain poorly and
no crep - must act on lower
push jaw forwards and later
put be hind plag a firm compress
behind and hold lower prey
4 - Coronoid no displac - tend
if temp mass - rup rest and
apply double sling -
5 Sep at Symph take a
strip of Adhesive plaster
and pull from angle forward
and double sling -
If hemorrage, just as soon
as put fragment together
hemorrage will cease
unless have compound -
Comp - if Crep and get at
plug - and put as well as
possible - don't take away
the teeth unless absolute - necessary -
find very useful till the teeth

HEAD OF HUMERUS.

Liability.
Causes.
Variety.
Signs.
Diagnosis.
Prognosis.
Treatment.

ANATOMICAL NECK.

Liability.
Causes.
Variety.
Signs.
Diagnosis.
Prognosis.
Treatment.

SURGICAL NECK.

Liability.
Causes.
Variety.
Signs.
Diagnosis.
Prognosis.
Treatment.

SEPARATION OF THE EPIPHYSES.

Liability.
Causes.
Variety.
Signs.
Diagnosis.
Prognosis.
Treatment.

SHAFT ABOVE INSERTION OF DELTOID.

Liability.
Causes.
Variety.
Signs.
Diagnosis.
Prognosis.
Treatment.

SHAFT AT ITS MIDDLE.

Liability.
Causes.
Variety.
Signs.
Diagnosis.
Prognosis.
Treatment.

SHAFT ABOVE CONDYLES.

Liability.
Causes.
Variety.
Signs.
Diagnosis.
Prognosis.
Treatment.

CONDYLES.

Liability.
Causes.
Variety.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XII. BONES OF THE FORE-ARM.

Liability.—More frequently broken than the humerus—one-fifth of all fractures.

Bones involved.—One or both may be broken. The radius is most liable, from its connexion with the wrist.

Causes.
Varieties.

BOTH BONES.

Parts generally broken.
Causes.
Variety.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURE OF RADIUS ALONE.

Liability.—Very common.
Causes.
Variety.
Parts usually broken.—Head, neck, shaft, or inferior extremity.
Symptoms of each.
Diagnosis.
Prognosis.
Treatment.

Hyoid – is almost a cart in
gung – but finally decided – hard
to a man sign that – may
recision – suppoc – great danger
pushing in –
Symp – obvious – often choke
up on – pain – almost suffo
treat – pecuniosis – if sing – pass
gum ping to rest tongue draw
the base tongue bring pus
in fter, danger of acute oe
edema – generally comes on
if can't bring pus back take
a tracheotomy – and insert in
tube – and bring pus out
if no pain let be – use
great antis

Thyroid – in young
never broken, often involved as
inflamm set in almost im
treat by antis phlog – and mod
put in hook if don't model
with bing – open cartilage
if out.

Sternum – not
very liable – yet has been bro
broken by direct or by muse
sometimes drown down to
interfere with action heart
no diff – any in recognise
where pcip – more obscure
if compression gold –

tried dipsm on Rind if obly
or towels bind by towels as
tight as can be bear - apt
to take on inflam. as soon
as dress present bin by inflam
ing pain opie - If wd
have also dispear -
but it, sometimes make
deep ulcers and then
goes down low fosa -
and when lip bind in
the other. If cant set
and patient can breathe
well let alone - if, hole
with heart set by plilling
with tracheal, if cant
succeed - cut down and
med - and pry out bone
see wood gas - and auth.

Ribs depend on
Rind force, as eg. Dish
out if in mid - dep ten
lyn acute. Hance n pe
crip - cough if lung wound
bloody expectorations, in
put fed opin cant distinguish
crip. Comp - by musc tissue
heat same. Rondet lower
disp - of frag in lungs
of bone. Where m and chested
by a weight falling on him
if disp inward a pit - air
heat made to suck in

Amp - lung also wound - if
an inner - find puffed up
emphysema - increased
diff of case - great blood
of lung wound - and spinal
bone - recog by Rad Ulcer and
amount of sum -
Prog - Fair sometimes -
Laceration of intercost artery -
Sim pic - by crap bam put round
round chest - purge - low diet
opiate to stop cough - Anti -
Sub Cum inds bone drain
blood - bring - prep - make
patient drip pretty - Stop the
hemor - and stop - give
dig - opium - if can't get
bone this way - take lin
and brace out as far from
seat of fract as possible -
if have Empyema - punc in
skin and press out air
and open wide - the most
is pun inter - ant - when
punctu - lose blood - open
dig - if comp fract - don't
allow pun - compresses and
take soft linen take, shove
it in chest to make pond
pass in cot and pull out
now get pus out cotton.

Dress Simple

if disp - put on a
compress Cover of Emp
and if ~~sat~~ deep -
Open Cerump sat.
put tape past wound and
Sept - place it over and
Bind - put it on with the
tuber fully merely on open
- Clavicle -
Foom si - th very bad
Cand direct or ind - if direct
hope frag drw down - upon
indirect simple fract - pro
in Bind - if direct mumb, cut
out and give his swelling may
have - par - if bin more
if Compli - Prog - is poor
If par as defor unfav -
no app - in vent - if care
may - always incline
one to may may even
deformity. stimal Cont
give Inner frag down
weight arm - as dis
stand - pec - and bar
brace arm in slight
Cant upward - by tout
Scap - Treat only 3
wk - Ascult

Shaft above delt muscle
higher up ~~the~~ up pass - pull in
lower the, parts and displace
put the angular splint back
down - and roller band from
hand up - (Rep Epiphyses
up to 10 or 12 - no odd mean
a very differ deformity - very
diff diagnosis - Force direct
sym - arm short - carried out
and back slight - but below
acromion - process a round smooth
tumor - no crepitation, or creaking
sound - just below acromion
a depression -
Prognosis - sometimes favor
rarely have a joint - treat by
the Sturm splint much
liable to be con partial cure
always treat accom. as for
of tubercle sometimes turn off
pure 1 or 2 an inches in cripp
breadth of shoulder - does
not destroy motion, if perf.
by surgeon - can't prove it
self. If passing up
come on a pretrumatural
tumor above pecp. must ex
mor also. treat
Shaft middle usual
treat. from short direction

Intermittent Morse Cervicitis, Treat
as a fracture of Neck - When
so paralyze - muscles use
an gutter Splint - May in 2 or 3
weeks substitute a removed Splint

Shaft above Cond

from Shirt - along brow, eyes
pushed down, before and behind
Dandifrom bag - Put patients
in Chair, and put arm across
knee and bend after making
ext and count - when wristlet
arm have crep - Treat use
2 ang - Splint and one bend
in front Rub - 3 week put off and
fix arm Sprain - begins with
passive motion at 3rd week strong

Condyles

may be on one side or through centre
from chest appr - Sometimes 2 prec
Rind of Ulna - a prominence forward
and deep for prominence - Treat - Eyes
and Counter, Eyes pulls away Elec Drum
and apply later, be fix when
at hand apply to Shoulder and lay
hand flat take two Ang Splint put
Splint where pressure is made - Rep R
the neck - Commence Ang Splint
and get arm Sprain 6 weeks
go back OR again supp to be
well Shocks

FRACTURE OF ULNA ALONE.

Liability.
Causes.
Variety.
Parts usually broken.—Shaft, extremities, coronoid process, olecranon process.
Signs of each.
Diagnosis.
Prognosis.
Treatment.

XIII. CARPAL BONES.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XIV. METACARPAL BONES.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XV. PHALANGEAL BONES.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XVI. SACRUM.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XVII. OS COCCYGIS.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XVIII. OS INNOMINATUM.

Liability.
Causes.
Situation of fracture.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XIX. FEMUR.

Importance of the fractures of this bone.
Liability.
Causes.
Varieties.
Parts usually broken.—Head, neck, trochanters, shaft, and condyles.

FRACTURE OF THE HEAD.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURE OF THE CERVIX WITHIN THE CAPSULAR LIGAMENT.

Liability.
Causes.
Age most liable.
Sex most liable.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

Torsion - often by direct or muscular one more bones Radius both may be broken in one plane or diff - In an complete cases no diff - in diag - if in diff plane not easy diagnosis pars fing and tenes of pain Dep or form Assessing Scime - 2 Spl padded splinting from to Sep - broken bones - long - to hand - flex arm - Ext and com put in between pro and sup in and dep ~~bone~~ roller put compress between ulna and 2nd neck rotate gently down in bend joint proper elbow

---

1844.

Sacrum — Thomas S. Dunotte.

Symp - Pain of Numbness - if disp - Pain bending of abdomen - arising from rect and dist blad - Treat simple case - to Rest pts rest - bind tight roller around pelvis, and bind thigh & legs together - most comf pos - flex thigs and legs on them Sep by a double inc splint Change pos - as often. If comp treat same plane - have nearly always Slough - put turn on side if Anurin - pick away all loose bone gr and against inflam bowel purge - opium

dont attempt to replace by putting hand up rectum. have ben bladder retention, may be ~~retained~~. both knee - pass the catheter, same rectum, dont open the bowels for a week empty rectum 2 week stoom —

PS Cox - This by force & direct always disp one side or other. the pieces may be drawn into virginia - or - very vexatious leg - Easy Kind path - acute at end rectum - put fing Can more - slight move of by mers ben little or no cripples.

Treat. If ~~accum~~ constipate by finger - retain more, by fingers in rectum till smelling great enough to retain, - If pelt dis push in place and retain by compress - If later dont wd this Rep by roller, when gets up dont let him sit on a soft cushion - as in more Lab - great violence and - in post more liable than others, prev direct generally avoid Illeum - fond comp of great pain more high more, but hard over place, and more the high and dist crep - and diagn by palp and by press on - Coecal Illeum - Lumb pt was

2 part if not treat prop is
sure to produce

Fract Sensor - 6 sp are
bling - drawn up - diagnosis
easy - pulsing along crest T.
T. relay all muscles by making
an arch of him, then take and
pull forcd down carry arrows
cell and tie in position now
put on common band -

Fract Ant Sup Sp - P.
by muscle contract, diag fractures
less motion depression - relay
muscles - or thigh band thigh as much
as pos - bind prog with strips plas -

Femur.

Head - spin by blunt stroke
or gun shot wound - dig Sup. Seat
pain up to Acet - by move pain -
again by putting the knee crepitus
little or no deformity. Prog in
sup - poor if young - if Scrofula
or gadgia. If old person very lim
but shortening limp. Exam
hip not - Intracapsular abscess - sometimes
occur without any inf cause - Hydrop in
Rg. T. if Comp and common pick away the
pieces Treat If Simple Treat White
plaster

Lem

Fract Cervix – only one bone
peculiar to advanced age, reason
owing to change in angle of bone
approach L. Also to make the angular
fracture more acute, and from width
of pelvis. Bones together; separated more
very slight fract regarded
Symp – Shortening limb – as a general rule
weaken limb from weight and action
of rotator muscles, no impetus because the
upper frag. drawn against muscle fibres
until the limb lengthened – the shaft rotates
as if on a pivot. Diag. – Very freq –
confounded with luxation, in latter
limb rigid, if place limb in splint when
fractured stays there, often no deformity
because fragments sometimes impacted the
help – very diff – only Symp – intense
pain, and if attempt the thigh meets –
and slight crepitus in shaft, always
treat as a fracture, and guard –
in all such obs cases –
Prognosis – Be cautious diff if fract in the
capsule – very liable to shortening, if patient old
and fleshy ~~and~~ contend against – in all prob
have short limb – if young – some in all prob
have good gain, osseous union rarely occurs
be very cautious. generally have leg – union
very little blood no cellular tissue hyperplasia
slight approach to keep fragment together
Treatment, depend on age, if old – do
can do – make comfort – if young –

We make attempt to give joints to old. get a low bedstead, mattrass and sacking bottom have double inch pe and pad them, make comfortable Rep here two or three weeks - if longer have bed sore - at end 2nd week take away bands and have double inc of pillows ~~and~~ or Rest Strait. Change of position more; bend bring to end of bed and make sit up - At end 6th week ate end 8th week crutches and Rep for 8 or 10 - months - ~~at~~ high heel shoe If person young - put same appartus -

Fract Forehand -

Sym - loss motion poor touch take away and have depress and some tumor no crep - and. must paralyze muscles extend limb - and put parts in appos - rep there by bandg - around pelvis - not appear long anym. Rep in 5 or 6th week - usually result in weak limb

Shaft below Trach -

upp. frag - up and out Ps. Mag Ill - Int. Short limb tumor above and along limb coapt crepitus, must in Tr at by act muc - in 2 ways act one upp. frag. by bend across up frag and around, Sometimes double inc plan and tie down,

FRACTURE OF THE CERVIX WITHOUT THE CAPSULAR LIGAMENT, OR PARTLY WITHIN AND PARTLY WITHOUT.

Liability.
Causes.
Age most liable.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURE OF THE TROCHANTERS.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURE OF THE SHAFT JUST BELOW TROCHANTERS.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURE OF THE SHAFT.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURE OF THE CONDYLES.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XX. PATELLA.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XXI. BONES OF THE LEG.

Liability.
Causes.
Variety.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURE OF FIBULA ALONE.

Liability.
Causes.
Varieties.
Part of bone usually broken.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURE OF TIBIA ALONE.

Liability.
Causes.
Varieties.
Part of bone usually broken.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XXII. BONES OF THE FOOT.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURE OF OS CALCIS.

Liability.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

2. DISEASES AND INJURIES OF THE JOINTS.

General Remarks.

Joints most liable to disease.

Causes of Disease.

Effects on Constitution.

Classification.—All the diseases of the joints may be ranged under nine heads.

1. Diseases originating in the soft parts, either *intra* or *extra*-articular.
2. Diseases originating in the hard tissues of a joint.
3. Affections which may be considered as products or terminations of diseased action.
4. Malignant diseases of the joints.
5. Wounds.
6. Sprains.
7. Dislocations.
8. Congenital luxation.
9. Diseases of the bursæ mucosæ.

First head.

a. Synovitis—acute and chronic.
b. Hydrops articuli.
c. Abscess.
d. Elongation of ligaments.
e. Inflammation of ligaments.
f. Fleshy tumours of the synovial membranes.
g. Loose cartilages in the joints.
h. Certain forms of white swelling.
i. Coxalgia, or hip disease.
j. Neuralgia.
k. Inflammation of the cellular tissue.

Second head.

a. Certain forms of white swelling.
b. Certain forms of coxalgia.

Third head.

a. Hypertrophy of articular cartilage.
b. Atrophy of articular cartilage.
c. Eburnation of articular cartilage.
d. Softening of articular cartilage.
e. Ulceration of articular cartilage.

Loose cartilage - often attached in crescent - one exception by a pedicle - so long as pedicle attaches are nodules of bone, when broken no difficulty. numbers vary in size and shape if smooth and flat little difficulty in removing, if longer more difficult giving rise to synovial inflam.

Symptoms - peculiar pain no external deformity - sudden arrestation of articular movement, if it exists and moves it will produce chronic synovitis -

Two modes of compression and pressure - more uniform than other. The pressure may be more - then nail of probe. Subcutaneous make valve open 4 in above joint - and pass knife down. Always endeavour by compression by mott active ~~[illegible]~~ anti phlogistics.

White swelling

f. Reparation of articular cartilage after wounds, &c.
g. Alteration in the form of the head and neck of the long bones.
h. Collections of blood in a joint.
i. Chalkey concretions in a joint.
j. Anchylosis.

First Head.

I. SYNOVITIS.

Definition.

Causes.—1. Constitutional. 2. Local.

First, or constitutional.—Rheumatism, gout, gonorrhœa, parturition, pregnancy, checked leucorrhœa, catheterism.

Second, or local.—Blows, strains, mechanical injuries of all kinds, foreign bodies in the joints, wounds.

Symptoms.—Pain on the slightest motion; swelling, redness, heat and tenderness of the skin; fluctuation; displacement of any loose bone or cartilage about the joint; and constitutional disturbance.

Diagnosis.—May be confounded with inflamed bursæ, but scarcely with any thing else.

Prognosis.—Varies. When but one joint is affected—when the cause is local—when the inflammation runs high—it may terminate in ulceration or degeneration of the synovial membranes, ulceration of the cartilages and bones, necrosis, the loss of the joint, or even the life of the patient. Under other circumstances, the prognosis is rather favourable.

Dissection.

Treatment.—General indications. 1. Remove the cause. 2. Subdue the inflammation by general and local antiphlogistic remedies. 3. Employ specific remedies when the cause is specific. 4. Prevent anchylosis.

II. HYDROPS ARTICULI, OR HYDRARTHUS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. ABSCESS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. ELONGATION OF LIGAMENTS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. INFLAMMATION OF LIGAMENTS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VI. FLESHY TUMOURS OF THE SYNOVIAL MEMBRANE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VII. CARTILAGES IN THE JOINTS

Definition and history.
Joints most liable.—The ginglymoidal, especially the knee, elbow and jaw.
Condition in the joint.—Loose or attached.
Size.—Varies.
Consistence.—Varies.
Structure.—Scarcely organized.
Number.—Varies.
Mode of formation.—Different explanations. Those of Paré, Monro, Erlangen, Hunter, Cooper, and Brodie, referred to.
Symptoms.
Diagnosis.
Prognosis.
Treatment.—Two general methods. 1. Compression. 2. Extraction. Relative value of the two. Dangers of extraction referred to, and the different operations, especially that of Goyraud and Syme, explained.

VIII. WHITE SWELLING, OR FUNGUS ARTICULI.

Definition.
Confusion in relation to the precise meaning of the term.
Brodie's classification.—According to Sir Benj. Brodie, all the cases of white swelling may be referred to one of four different lesions. 1. Simple inflammation of the synovial membrane. 2. Gelatinous degeneration of the synovial membrane. 3. Ulceration of the cartilages. 4. Ulceration of the bone.
Ages most liable.
Joints most liable.

Causes.—Constitutional and local.

Symptoms.—Vary with the form of lesion. Three groups may be made.

Diagnosis.—Highly important to distinguish one from the other.

Prognosis.—Varies, but generally it is unfavourable.

Terminations.—Resolution, anchylosis, suppuration, alteration of all the tissues of the joint, necrosis, the loss of the joint or limb, or the life of the patient.

Dissection.—Depends on the stage at which it is made, and the form of the disease.

Treatment.—Differs somewhat in each variety, but there are certain general indications that will answer for all. The remedies are of course both *constitutional* and *local.*

General indications in the first stage of the disease.—1. Keep the part at rest by splints and position. 2. Employ general and local antiphlogistics if inflammation runs high. 3. Prevent contraction of the limb.

General indications in the second stage.—1. Counter irritation should be employed. 2. Pressure as recommended by Scott is often useful. 3. Employ alteratives to suit the diathesis. 4. Keep the joint at rest, while the patient is allowed, if possible, access to the fresh air. Crutches and sling, &c. 5. Support the strength if prostration should supervene. 6. Prevent anchylosis.

General indications in the third stage.—1. Support the general health. 2. Never open the abscess unless we are forced so to do by peculiar circumstances. 3. Poultice the part after the abscess opens. 4. Keep the joint in a splint. 5. It is often essential to obtain anchylosis, to save the life of the patient. 6. When all our remedies fail, and the patient is sinking, *amputate* or *excise* the joint.

IX. COXALGIA, OR HIP DISEASE.

Definition.

Persons most liable.—Children of a scrofulous habit, from three to four years of age, or from seven to fourteen. May occur in adults.

Causes.—1. Constitutional. 2. Local.

First, or *constitutional.*—Scrofula, atmospheric changes, rheumatism, repelled eruptions.

Second, or *local.*—Mechanical injuries of every kind.

Symptoms.—May be divided into four groups. 1. Those which characterize the period of apparent *elongation* of the limb, with slight pain in the knee and lameness, &c. &c. 2. Those which belong to the period of *shortening* of the limb, with pain in the hip itself, &c. &c. 3. Those which characterize the period of suppuration and ulceration in the joint. 4. Those which indicate convalescence. The causes of *elongation* and *shortening* in the first and second stages explained.

Diagnosis.—May be confounded with—

a. Fracture of the cervix femoris.

b. Luxation of the caput femoris.

c. Congenital luxation.

d. Rheumatism.

e. Chronic inflammation of the upper third of the femur.

f. Sciatica.

g. Psoas abscess.

Prognosis —May be stated to be generally unfavourable.

Dissection.—The appearance on dissection depends upon the stage and progress of the disease.

Pathology.—Much diversity of opinion on this point. State my own views.

Treatment.—General indications. 1. Rest and the antiphlogistic system throughout the first stage. 2. Place the limb in a splint of such construction as shall maintain the limb as nearly in its natural position as possible, so that when resolution cannot be obtained, and false joint or anchylosis must be brought about, the patient may still retain its use. Speak of Physick's and Humbert's method of practice. 3. Attend to the diathesis. 4. Apply counter irritants. 5. Support the health when this support is indicated. 6. Evacuate pus when it is formed in large quantities, poultice, and support the health. 7. When resolution cannot be obtained, endeavor to form a false joint, or establish anchylosis. 8. After inflammation has subsided, and the limb remains shortened from muscular contraction, it is often useful to employ Humbert's method of reduction. Point out the dangers of this practice, as well as its advantages. 9. Protect the limb for some time after the cure has been established. 10. When the limb is shortened or deformed, apply some apparatus by which the patient will be enabled to walk with comfort.

X. NEURALGIA.

Definition.
Persons usually attacked.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XI. INFLAMMATION OF THE CELLULAR TISSUE EXTERIOR TO THE JOINT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

Second Head.

I. CERTAIN FORMS OF WHITE SWELLING.

For the characteristics of these forms, refer to what has already been given under the first head.

II. CERTAIN FORMS OF COXALGIA.

For the characteristics of these forms, refer to what has already been said under the first division.

Neuralgic – Irritat – Suppose
rat rheumatism – Pale – hungry – Appe-
tite if pain intermittent, no swelling
yes ad rests or heat, will complain as
much by slight as by violent
more. Full dates Hope – Diet
good – and Sour – better
Tinc arnica – shower bath.

Third Head.

I. HYPERTROPHY OF THE ARTICULAR CARTILAGES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. ATROPHY OF THE ARTICULAR CARTILAGES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. EBURNATION OF THE ARTICULAR CARTILAGES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. SOFTENING OF THE ARTICULAR CARTILAGES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. ULCERATION OF THE ARTICULAR CARTILAGES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VI. REPARATION OF THE ARTICULAR CARTILAGE AFTER WOUNDS AND FRACTURES.

Describe this process.

VII. ALTERATION IN THE FORM OF THE HEAD AND NECK OF THE LONG BONES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VIII. COLLECTIONS OF BLOOD IN THE CAVITY OF A JOINT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IX. CHALKEY CONCRETIONS IN AND AROUND JOINTS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

X. ANCHYLOSIS.

Definition.

Classification.—1. Partial or local.
2. General or universal.
1. True or complete.
2. False or incomplete.
1. Extra capsular.
2. Intra capsular.
3. Capsular.

Causes.—Most of the causes operate by keeping the parts motionless, or nearly so, for a length of time. For example : diseases of various kinds, tumours, fractures, dislocations, simple rest, cicatrices, injuries of tendons and muscles, paralysis of one set of muscles, contraction of fascia, &c.; others operate under all circumstances, as old age, chronic rheumatism or gout. Sometimes it is a protective effort of nature, as seen in curvatures of the spine, anchylosis of diseased joints, &c.

Liability.—Ginglymoid joints are more frequently thus affected than the orbicular. Why ?

Symptoms.—Depend on the variety of anchylosis.

Diagnosis.—Cannot be confounded with any other affection. There is often much difficulty, however, in the distinguishing one form from another.

Prognosis.—Varies with the character of the lesion—the nature of its cause—the duration of the case—the age and health of the patient—the joint involved, &c.

Dissection.—Varies with the kind of anchylosis.

Wounds 2. divided superficie
and penetrating, be careful in stitching
not to take a stitch through main lyn
in bad lacerated wounds. - must perform
sliding operation. If ball lodge in front
take a knife & can see take
out - but if can see it get it out

Treatment.—In *true* anchylosis we can only relieve the patient by *establishing a false joint*, or straightening the limb by *cutting out a plug of bone*, as performed by Dr. J. R. Barton. Never *excise the joint*, nor *amputate the limb*, as advised by some; nor should we attempt Louvrier's operation.

In *false* anchylosis, the treatment is modified by the cause of stiffness. The agents usually employed are *passive motion*, *frictions*, *electricity*, *galvanism*, *vapour bath*, the *screw*, *division of tendons*, *fascia and muscles*, *excision of cicatrices*, and *some contrivance to take the place of paralysed muscles*, as advised by Sir C. Bell. The comparative merit and dangers of these means explained.

Fourth Head.

MALIGNANT DISEASES.

The joints are liable to be attacked with malignant diseases of various kinds, but especially with *malignant exostosis*, *medullary sarcoma* and *fungus hematodes*. For the characteristics of these diseases, as well as their treatment, see chapter on "Tumours."

Fifth Head.

WOUNDS OF JOINTS.

Division.

Causes.

Symptoms.—Vary with the character of the wound.

Diagnosis.—Generally, there is no difficulty in deciding upon the character of the wound at once. Punctured wounds may be confounded with wounds of the bursæ mucosæ.

Prognosis.—Depends on the *joint injured*, the *character of the wound*, the *age and health of the patient*, the *season of the year*, and *the possibility of obtaining the proper remedy*.

Dangers.—Inflammation, tetanus, caries, and necrosis.

Dissection.—The appearances on dissection depend upon the stage of the disease, at which the examination is made.

Treatment.—Divided into—1. Constitutional. 2. Local. The remedies must be modified to suit the peculiarities of the case.

Sixth Head.

SPRAINS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Results or effects of the injury.
Treatment.

Seventh Head.

DISLOCATIONS.

Definition.

Causes.—1. Predisposing or remote. 2. Proximate or efficient. The first class may be subdivided into the *local* and *general*.

(1.) The local predisposing causes are—

a. Preternatural length of the ligaments of a joint, (see Stanley.)

b. Peculiar congenital formation of the joint.

c. The form of the joint.

d. Paralysis of the muscles around the joint.

e. Disease of the constituent tissues of a joint.

f. Hydrops articuli.

g. Tumours or earthy deposites in or about the joints.

h. Interstitial change in the articulating surfaces.

The general predisposing causes are—

a. Preternatural laxity of the entire ligamentous system, (see Delpech.)

b. The age. Dislocations are rare in the *very young* or *very old*.

(2.) *Local or external causes.*

a. External violence.

b. Muscular action.

Joints most liable to luxation.—The ball and socket joints, from the character of their articulating surfaces; the weakness of their ligaments; and their subjection to the influence of a larger number of muscles, are more frequently dislocated than the ginglymoid.

Classification of dislocations.—The first division is based upon the definitive position of the head of the bone. Thus we have—

a. Primitive luxation.

b. Consecutive luxation.

The second degree is based upon the degree of displacement. Thus we have:

a. Complete luxation.

b. Incomplete luxation, or sub-luxation.

The third division is based upon the duration of the accident. Thus we have:

a. Recent luxation.

b. Old luxation.

The fourth division is based upon the degree of injury inflicted upon the adjacent soft parts or the bones themselves. Thus we have—

a. Simple luxation.

b. Compound luxation.

c. Complicated luxation.

Symptoms of luxation.—1. Rational or Physiological. 2. Sensible or Physical.

First, or rational.

a. Pain.

b. Numbness or paralysis in limb.

c. Loss of motion.

d. Constitutional disturbance.

Second, or physical.

a. Change in the entire form of the limb.

b. Change in the natural length of the limb.

c. Unnatural rigidity of the limb.

d. The disappearance of preternatural enlargement of the natural prominences of the joint.

e. The appearance of unnatural cavities about the joints.

f. The appearance of a tumour (formed by the head of the bone) in the vicinity of the joint.

Diagnosis.—Dislocations may be confounded with—

1st. Fractures.

2d. Sprains.

3d. Bent bones.

Prognosis.—Depends on a variety of circumstances. It is modified, for example, by—

a. The joint involved.

b. The degree of displacement.

c. The duration of the injury.

d. The degree of injury sustained by the soft parts of bones.

e. The constitution of the patient.

f. The direction taken by the head of the bone.

Dissection.—Appearances depend on the duration of the injury, and the tissues upon which the head of the bone rests.—State the usual appearance in *recent and old luxations.*

Treatment.—General indications.

1. The general condition of the patient demands our first attention, and before we attempt to relieve the injury he must be placed in as comfortable a position as possible, his fears calmed, and reaction to a certain degree established. It is sometimes well to deviate from the last direction, for should the patient faint from pain merely, his muscles are in the most favorable condition for our attempts at reduction.

2. As there is always displacement, "*reduction*" will be required. This may be accomplished, in many cases, by the employment of *mechanical means* alone, but often *constitutional* agents are required.

The mechanical means are—

a. Extension.

b. Counter extension.

c. Change in the position of the different bones.—To accomplish these objects we employ *the hands of assistants*, *bands*, *rollers*, *the pullies*, and *various apparatus* for overcoming muscular resistance.—The forces must be applied *steadily* and *slowly*, they *must also be equal* and generally in *the line of displacement.*—Muscular resistance is often overcome by directing the patient's mind from the set of muscles concerned in the accident.—We must also select the *part* upon which our *extending* and *counter extending* bands are to be placed. Difference among surgeons on this point.—The obstacles to reduction by mechanical means alone are—

1. Muscular contraction.
2. The degree of laceration of the soft parts.
3. The shape of the joint.
4. The locking of the bones.
5. The existence of adhesions.
6. The interposition of tendons or ligaments.

The constitutional remedies employed, are intended chiefly to produce prostration, so that all muscular resistance is destroyed; and the most efficient are:

a. Bloodletting.

b. Hot bath.

c. Tart. Antim. et Potassæ.

d. Fumes of tobacco, or injections of its infusion.

e. Intoxication.

f. Etherification.

Value of Myodiatomy in difficult cases discussed.—Also the propriety of attempting the reduction of *old luxations* considered.

3. From the partial paralysis of the muscles, and laceration of the ligaments, it is essential to apply some mechanical means to prevent the recurrence of the luxation.—The usual dressings for fractures of the same bones may be employed, for a week or two after the reduction of the accident.

4. As inflammatory symptoms may supervene, measures must be taken to prevent their occurrence, and should they occur in spite of our efforts to the contrary, the antiphlogistic system in all its details must be employed.

5. For the rigidity, which, in almost every case, is the result of the dislocation, the remedies already mentioned as applicable to the same difficulty coming on after fractures, may be had recourse to.

6. When complicated with fracture, always recollect to dress both injuries before you leave the patient, and also to adopt the plan of treatment already indicated under the head of fractures.

COMPOUND AND COMPLICATED LUXATIONS.

After the reduction of the bones, the treatment in these injuries is identical with that advised in cases of compound and complicated fractures.—It is, therefore, needless to repeat it here.—The remarks relative to the dangers, and question of amputation, in the latter class of accidents, apply very well to the former.

PARTICULAR LUXATIONS.

I. INFERIOR MAXILLARY.

Anatomy of the joint.

Liability.—This accident is common.

Causes.—1. Predisposing. 2. Proximate.

(1.) Age, sex, and preternatural elongation of the processus vaginalis.

Variety.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

a - Blistering - from time of Hippocrates employ in a certain way must have the patient standing - would have any effect if in horizontal position - always take away rapidly - by large orifice - to ~~Hot bath~~ most efficient after the blood letting where there is no contra indica, redness other - Hot bath have the rule - make as hot as he can bear - 110° 112° - If not need to tobacco, Tart Emetic - does not good lots by setting up inflammation in the mucous membrane stomach. Sometimes absolutely necessary to divide the tendon Biceps Vel - often reduction must always kick the parts at rest have generally some heat must as fronts have also inflammation, and great pain - Good rule to dust and wear to bleed a muscular patient after big operation have sometimes repeated patient in position douche warm bath bedside - when complicated take care to put on some contrivance that will steady fragments till big ation is reduced - Philippe gesture -

Int May -

Only one in place liable to hospital from absence of strong lady from May matched -

causes 1st — age — almost peculiar to adult middle age — nearly always fracture. Condition muddled system, some persons peculiar.
Occ. Pneumatic. Is caused by widely open pelvic portion of stylo-form and lines formed and thoroughly sent out — pelvic natural thoroughly expulsive process —
Symptoms — Cant shut mouth turn in check depression where for pelvic and fulness check — great secretion only in where only one condyle — Sud Just — intense pain Saliva dripping out mouth — very little difficulty breathing only conquer by the condyles retaining slip — Open mouth and put thumb molar teeth — and press downwards and left then slip the thumb between, Put the cork in the wry lever and press hard against cheek and press strongly upward — Just cure — prompt & automatic contract slip — press down jaw and hold — Crackling of jaw pressure — condition of pelvic reciprocated by force of the person owing to chronic inflam — opposite side — cold water from change of temperature, [illegible]

Radius - Same as in fracture -

Ribs - easy recognition never have injury centre - Rib at rest Antiphlogis -

Sternum - Same remarks

Clavicle - from either extremity sternal or acromial forwards - if shoulder brought forwards lig not give away and both steps out and brought against sternum by traction of the pectoralis major in front and the deltoid behind. Shortening obstinate pain tender, bad motion and tumor in front. Treat thus the patient in chair some bandage exp by a strut around chest and one strut to two assist - and then take the arm and hold in line of displac - and then steps out - if in acromial deformity may apt be ignored in long cases - put on an app - that work obj - Put on fracture band and then put on McKay plaster.

Scapula hence sternal extremity

II. SUB-LUXATION OF THE LOWER JAW.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. OS HYOIDES.

Liability.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. RIBS.

Anatomy of the articulations.
Liability.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. STERNUM.

Liability.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VI. CLAVICLE.

Anatomy of its articulations.

Liability.—May be luxated at either extremity. The scapular is most frequently displaced.

Direction of Displacement.—The sternal extremity may be displaced in three directions:—*forwards*, *backwards*, and *upwards*. The scapular is usually thrown *upwards* or *downwards* beneath the acromion process.

I. STERNAL EXTREMITY FORWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. STERNAL EXTREMITY BACKWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. STERNAL EXTREMITY UPWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. SCAPULAR EXTREMITY UPWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. SCAPULAR EXTREMITY DOWNWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VII. LUXATION OF THE INFERIOR ANGLE OF THE SCAPULA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VIII. LUXATION OF THE HEAD OF THE HUMERUS.

Anatomy of articulation.

Liability.—Very great, from the small size of the articulating surface; the weakness of its ligaments; the freedom of its motions; its constant exposure; and from its subjection to the influence of several muscles.

Direction of displacement.—Downwards, forwards, backwards, and partially upwards and forwards. Displacement directly upwards, to any extent, cannot occur without fracture of the acromion. Explain the *intercostal* and *thoracic* luxations mentioned by Larrey and Percy.

I. DOWNWARD LUXATION.

Causes.

Symptoms.

Diagnosis.—May be confounded with fracture of cervix scapulæ, fracture of the neck of humerus, bruises, paralysis of the muscles, and dislocation of the biceps tendon.

Prognosis.

Dissection.

Complications.—Great swelling; emphysema; inflammation; paralysis of muscles.

Treatment.—General indications.

a. Fix the scapula.

b. Relax the muscles.

c. Draw the head of the bone to its cavity.

General methods.

a. Simple elevation of the arm.

b. Lifting the head of the bone while the arm is abducted.

c. Mothe's plan, or rather, Mr. White's.

d. Extension with heel in the axilla.

e. Pullies and bands.

f. Reducing apparatus of different kinds.

g. Myodiatomy.

It may be necessary to use *constitutional* remedies in combination with either of these plans.

II. FORWARD LUXATION.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Complications.

Treatment.—Reduce to the first, and then employ the means already indicated.

III. BACKWARD LUXATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Complications.
Treatment.—Reduce to the first, and then employ the measures already pointed out as efficient in the reduction of the former.

IV. PARTIAL, OR SUBLUXATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. DISLOCATION OF THE BICEPS TENDON.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IX. LUXATION AT THE ELBOW JOINT.

Anatomy of the joint.
Liability.
Direction of displacement.—Backwards and upwards of both bones; lateral of both bones; forwards of both bones; forwards of the head of the radius; backwards of the head of the radius; imperfect luxation of the head of the radius; upwards of the superior extremity of the ulna.

I. BACKWARDS AND UPWARDS OF BOTH BONES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. LATERAL DISPLACEMENT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

Luxation at Elbow Joint

1. By falls on hand when Arm in State
2. flex forarm shortened flexed, tumor
before and behind – rigidity and stretch
tendons of Brachialis Ant. and O. Flex
muscles which resist efforts to reduce
if called immediately prog easy but if
some time has elapsed swelling setting
in almost impossible. To reduce
paralysis of muscles by pulling in
line by displace – where they
fail resort to pulley –

Dislocation of Radius on cond
of Humerus and fracture of Elecra
Treat set Extend forearm on arm
and put on same splint that is used
in fracture of Fore Arm –

Upper End of Radius forward
and backward – backward very
supposes to be great no – Back
head thrown out and back by
muscular action – or by fall –
the interosseous lig torn – se
the hand rigidly prone – rotate
hand and can feel one tumor
on condyle rotate – to reduce
flex fore arm – put finger
on tumor pull in line of des
place then pushing tumor with thumb

and turn the hand around Supine — the ulna forwards — the anterior part of condyle — and hand is supine — to reduce much more difficult.

Backward of Ulna — the deformity. Very peculiar — the radius stationary inside of forearm shortened hand point towards body — making extension counter extension — lifting with ease. Subluxation of head of head radius by interlocking of two bones — Bring hand into proper position and press down head of Radius.

Luxations of Wrist Joint.
Extension in line of displace
Separate bones from unnatural
position and replace hand. Constant
danger of reducing again - and
must be cautious patient -

III. FORWARD DISPLACEMENT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. FORWARDS OF THE HEAD OF THE RADIUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. BACKWARDS OF THE HEAD OF THE RADIUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VI. IMPERFECT LUXATION OF THE HEAD OF THE RADIUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VII. LUXATION OF THE SUPERIOR EXTREMITY OF THE ULNA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

X. LUXATION OF THE WRIST.

Anatomy of joint.
Liability.
Direction of displacement.—Backwards, forwards, and laterally.

I. BACKWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. FORWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. LATERAL.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. LUXATION OF THE LOWER EXTREMITY OF THE ULNA.

Causes.
Varieties.—Backwards and forwards.
Symptoms of each.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XI. LUXATION OF CARPAL BONES.

Anatomy of joint.
Liability.
Direction of displacement.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XII. LUXATION OF METACARPAL BONES.

Anatomy of these joints.
Liability.—The first is usually the only one displaced.
Direction of displacement.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

Luxation of Carpal bones — will sometimes confound the diagnosis of luxation of lower extremity of the Ulna — the pisiform bone being broken off —

XIII. LUXATION OF PHALANGES.

Anatomy of these joints.

Liability.—All may be luxated, but usually the first of the thumb is most liable.

Direction of displacement.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.—Difficulties to be overcome are, 1. Shape of the bone. 2. Binding of ligaments. 3. Interposition of anterior ligaments. (Vidal and Pailleux.) 4. Interposition of sesamoid bones. (Lawrie.) 5. Want of leverage. Manner of overcoming these difficulties explained.

XIV. LUXATION OF THE SACRUM.

Anatomy of joint.

Liability.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

XV. LUXATION OF THE OSSA INNOMINATA.

Liability.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

XVI. RELAXATION OF THE PELVIC SYMPHYSES.

Liability.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

XVII. LUXATION OF THE FEMUR.

Importance.

Anatomy of the joint.

Liability.

Direction of displacement.—The head of the bone may be displaced *upwards* in *three* directions, and *downwards* in *three* directions, viz.: upwards and forwards upon the dorsum ilii; upwards and forwards upon the ossa pubis; directly upwards; downwards, and backwards in the upper ischiatic notch; downwards and forwards into the foramen ovale; directly downwards.

I. UPWARDS AND BACKWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—General indications.
a. Fix the pelvis.
b. Draw the head of the bone towards its cavity.
c. Make use of the different muscles to assist in the reduction.
d. Employ constitutional remedies to relax the muscles.
General methods.
a. Bands and pullies.
b. Apparatus.

II. UPWARDS AND FORWARDS ON THE OSSA PUBIS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—General indications are the same as in the first variety. The general methods are also the same, but we must vary the direction of our forces.

III. DIRECTLY UPWARDS. (VERY RARE.)

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—The same indications to be observed as above, but vary the direction of the forces to suit the case.

IV. BACKWARDS AND SLIGHTLY DOWNWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—General indications the same as above, but the direction of the forces must be varied.

V. FORWARDS AND DOWNWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—General indications still the same, but the process must be varied.

Do this by drawing leg forward when feel the head slipping — and thus throws it into the cavity of the act —

Direct up simple extension and counter —

IV. Bringing of him no extension too long already — Take it

VI. DIRECTLY DOWNWARDS. (VERY RARE.)

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—General indications still the same, but we must modify our forces to suit the case.

XVIII. LUXATION OF KNEE.

Importance.
Anatomy of the joint.
Liability.
Direction of displacement.—To render these luxations more clear to the student it will be well to consider those of each constituent of the joint, and first of those of the

I. PATELLA.

Varieties.—1. Outwards; 2. Inwards; 3. On its axis; 4. Upwards; 5. Downwards.
Causes of each.
Symptoms of each.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. LUXATION OF THE HEAD OF THE TIBIA.

Varieties.—1. Backwards; 2. Forwards; 3. Outwards; 4. Inwards; 5. Subluxation or twist.
Causes.
Symptoms of each.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. INTERNAL DERANGEMENT OF THE KNEE JOINT.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IV. SUBLUXATION FROM LENGTH OF LIGAMENTS.

Causes.—*Congenital or acquired.*
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. LUXATION OF THE HEAD OF THE FIBULA.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XIX. LUXATIONS OF THE ANKLE JOINT.

Importance.
Anatomy of the joint.
Liability.
Direction of displacement.—Inwards; Outwards; Forwards; Backwards.

I. INWARDS.

Causes.
Complications
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. OUTWARDS.

Causes.
Complications.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. FORWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. BACKWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XX. LUXATION OF THE TARSAL BONES.

I. ASTRAGALUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. THE CUNEIFORM, ETC.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XXI. LUXATION OF THE METATARSAL BONES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

Eighth Head.

XXII. LUXATION OF THE PHALANGES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

CONGENITAL LUXATION.

Definition.
Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

III. DISEASES OF THE FIBROUS SYSTEM.

Some of the affections of this system have been included under the diseases of the joints; for example, Desmodia, and Desmectasis: others belong more particularly to the practice of medicine than to surgery, as rheumatism, &c. The diseases usually considered as strictly surgical are—

I. PERIOSTITIS.

Definition.

Varieties.—1. Acute. 2. Chronic.

Causes.—1. Local. 2. Constitutional.

First, or local:

a. Contusions.

b. Punctures.

c. Incisions.

d. Extension of inflammation from diseased organs in the vicinity.

Second, or constitutional:

a. Syphilis.

b. Excessive use of mercury.

c. Scrofula.

d. Cold.

Symptoms.—1. Local. 2. Constitutional.

Diagnosis.—May be confounded with ostitis, caries, necrosis, rheumatism, or gout.

Prognosis.—Varies in different cases. Usually the cure is tedious; it may nevertheless be considered a very curable disease.

Dissection.—The post-mortem appearances depend on the intensity and duration of the attack.

Terminations.—Resolution, suppuration, effusion of lymph; inflammation, caries or necrosis of the subjacent bone; conversion of the membrane into cartilage or bone.

Treatment.—The remedies are divided into *general* and *local.* Both are modified by the circumstances of the case.

First, or general.

1. Bloodletting.
2. Active purgation.
3. Low diet.
4. Mercurials.
5. Preparations of iodine, especially the iodide of potassium.
6. Decoctions of the woods.

Second, or local.

1. Leeches.
2. Free incisions.
3. Poultices and fomentations.
4. Blisters.
5. Iodine, or mercurial frictions.
6. Wool and oil-silk dressing.

II. PARONYCHIA, OR WHITLOW.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Terminations.
Treatment.

III. TYROMA.

Definition.
Varieties.—Partial or general.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Terminations.
Treatment.

IV. CHONDROMA.

Definition.
Varieties.—Partial or general.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Terminations.
Treatment.

V. OSSIFICATION OF THE PERIOSTEUM.

Varieties —Partial or general.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VI. MALIGNANT DISEASES OF THE PERIOSTEUM.

Like all other organized tissues, the periosteum is liable to be attacked by the various diseases termed *malignant*, the characteristics of which have already been or will be described under other heads.

VII. WOUNDS OF FASCIA OR APONEUROSIS.

Varieties of wounds.
Symptoms.
Diagnosis.
Prognosis.
Terminations.—Inflammation, sloughing, suppuration, adhesions, contractions.
Treatment.

VIII. CONTRACTION OF FASCIA.

The numerous fasciæ and aponeuroses in different parts of the body, are all liable to undergo a *chronic thickening* and *contraction*, from which results a variety of deformities, many of them very difficult to relieve, and others entirely incurable. Ghidella and Froriep were among the first to describe these affections with any thing like method or correctness, although the disease was long since spoken of by the ancients, as "crispatura tendinum!" Sir A. Cooper, Dupuytren, Goyraud, and most of the recent authorities in orthopedic surgery, have likewise carefully and correctly explained the nature of the defect, and also the most approved methods of treatment. We shall describe briefly the most important of the deformities resulting from this cause.

I. CONTRACTION OF THE FASCIA PALMARIS.

Anatomy of the fascia of the palm of the hand.

Deformity produced by the contraction of the fascia, or fibrous cords attached to its inferior margin.—(Dupuytren and Goyraud.)

Fingers usually involved.

Causes of the contraction.—1. Congenital. 2. Acquired: and according to Dupuytren, the defect is occasionally *hereditary*.

Diagnosis.—May be confounded with retraction of the fingers dependent on other causes; as contraction of the flexor tendons, cicatrices, &c.

Prognosis.—By no means in every case favorable. It is, however, often susceptible of relief.

Effects on the adjacent muscles, tendons and ligaments.

Treatment.—Three modes of treatment. 1. Mechanical extension. 2. Frictions. 3. Subcutaneous section, followed by mechanical extension. The merits of these methods discussed.

II. CONTRACTION OF THE FASCIA CUBITI.

Anatomy of the part.

Deformity produced by the contraction of the Fascia.

Causes.—1. Congenital. 2. Acquired.

Diagnosis.—May be confounded with contraction of the tendons of the biceps and brachialis internus muscles, and inflammation of the joint.

Prognosis.

Effects on the other constituents of the articulation.

Treatment.—The same general methods are applicable here, that are employed in the other fascial contractions.

III. CONTRACTION OF THE FASCIA PLANTARIS.

Anatomy of the sole of the foot.

Deformity produced by the contraction of the fascia.

Causes.—1. Congenital. 2. Acquired.

Diagnosis.—May be mistaken for common talapes equinus.

Prognosis.

Effects on the tarsal and metatarsal articulations.

Treatment.—The same general methods that are required in contraction of the other fascia.

IV. CONTRACTION OF THE FASCIA LATA AT THE KNEE.

Anatomy of the joint.
Deformity produced by the contraction of the fascia.
Causes.—1. Congenital. 2. Acquired.
Diagnosis.—May be confounded with contractions of the tendons and muscles, and also inflammation of the joint.
Prognosis.
Effects on the articulation.
Treatment.—The same general methods hold good here.

IV. DISEASES OF THE BURSÆ MUCOSÆ.

I. WOUNDS OF THE BURSÆ.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

II. INFLAMMATION OF THE BURSÆ.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

III. ABSCESS OF THE BURSÆ.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IV. HYDROPS BURSÆ.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

V. CARTILAGINOUS FORMATIONS IN THE BURSÆ.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VI. GANGLION.

Definition.—Encysted tumor formed in the course of a tendon or its fibrous sheath.

Symptoms.
Causes.
Pathology.
Joints most liable.
Diagnosis.
Prognosis.
Treatment.

1. Stimulating friction and blisters; 2. Compression; 3. Seton; 4. Puncture followed by compression; 5. Rupture of Cyst; 6. Acupuncture; 7. Extirpation.

VII. BUNYON.

Definition.—An inflammation with thickening of the bursa mucosa on the inside of the great toe.

Causes.
Symptoms.
Prognosis.
Diagnosis.—Dislocation from Gout and Rheumatism.

Treatment.—When *acutely* inflamed, leech, and apply cold or warm poultices, and elevate the foot; when *chronic* inflammation takes place, blister and use iodine locally, and avoid pressure on the foot; when *suppuration* takes place, let out the pus, and apply a poultice.

When the bursa become very troublesome, it may be dissected out. [See Brodie.]

VIII. HOUSEMAID'S KNEE.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

V. DISEASES OF THE TENDONS.

I. WOUNDS OF THE TENDONS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.

Mode of reparation.—Depends upon the nature of the wound. In wounds exposing the tendon to the air, the process differs essentially from that which takes place when the tendon is not exposed. The degree of separation of the divided extremities also modifies the process.—(See Velpeau, Ammon, and Bouvier.)

Treatment.—1. Simple position and apparatus. 2. The Suture, aided by bandages and position. 3. Antiphlogistic system. The apparatus or dressing must be modified to suit each particular case.

II. INFLAMMATION OF TENDONS.

Varieties.—Simple, rheumatic, or gouty; acute, or chronic.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

III. OSSIFICATION OF TENDONS.

Causes.
Persons most liable.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IV. TUMOURS OF TENDONS.

See chapter on "Tumours."

VI. INJURIES AND DISEASES OF THE VOLUNTARY MUSCLES AND THEIR TENDONS.

I. WOUNDS AND RUPTURE OF MUSCLES.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Mode of reparation.—This process is modified by the exposure or non-exposure of the injured muscle to the action of the air.
Treatment.—1. Rest, proper position, and apparatus. 2. Suture, or straps, and bandages. 3. Antiphlogistics.

II. MYOSITIS OR INFLAMMATION.

Varieties.—Simple, rheumatic, or gouty; acute or chronic.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Terminations.—Palsy, irregular spasm; suppuration, (Myositis purulenta;) softening, (Myositis emolliens;) hypertrophy; atrophy; hardening; and ossification.
Treatment.

III. SUPPURATION IN MUSCLE.

The symptoms indicative of suppuration in this tissue resemble those already described under the general head "Suppuration," and the treatment is precisely the same as that proper in cases of suppuration elsewhere. The most striking peculiarity of this action here, is the circumstance of the entire muscle often disappearing, as in *psoas abscess.*

IV. SOFTENING.

This condition of the muscle may result from *defective nutrition*, as stated by Laennec; and also from *inflammation*, as Bouillaud has clearly shown. The muscle becomes pale, flabby, friable, and easily torn. There is no remedy for the difficulty.

V. STEATOSIS, OR FATTY DEGENERATION.

This degeneration is exceedingly uncommon, but cases are reported by Vicq d'Azyr and others, in which the muscles were reduced to all the physical properties of fat.

VI. OSSIFICATION.

This is seen in old persons, and also in certain forms of exostosis. It may exist as the result of inflammation.

VII. HYPERTROPHY.

This condition of the voluntary muscles is rare, but it occasionally occurs from *inflammation*, or *excessive nutrition*. It is also sometimes congenital.

VIII. ATROPHY.

This is a very important lesion of the muscles, and gives rise to many diseases. It presents itself under several forms. We have—

1. *Simple atrophy*—the result of long disuse, palsy, or defective nutrition.

2. *Rigid atrophy.*—The muscle is here shortened, rigid, inextensible, and lighter colored than natural. The diseases produced by this variety are club-foot, some forms of wry neck, contracted limbs, stiff jaw, &c. It generally results from spasmodic affections, or from the muscles being confined for some time to one position.

3. *Atrophy, with absorption of the muscular tissue.*—This is usually the result of exposure to cold for a length of time.

The affections resulting from *simple atropky* may occasionally be relieved by *removing the cause* and resorting to measures calculated to *restore tone and vigor* to the *muscles*. The most common deformities produced by it are

I. PARALYSIS OF ONE LEG OR BOTH.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.—1. Constitutional remedies.
a. Strychnia.
b. Cold bath.
c. General frictions.
d. Nutritious diet.
e. Exercise in the fresh air. To accomplish this indication we are generally obliged to use a go-cart.
2. Local measures.
a. Frictions.
b. Galvanism.
c. Acupuncture.
d. Mechanical support.
e. Operation of Stromeyer.

II. FASCIAL PALSY.

Causes.
Muscles involved.
Symptoms.
Diagnosis.
Prognosis.
Treatment.—1. Constitutional remedies—the same as those recommended in the other case.

2. Local treatment.
a. Acupuncture.
b. Moxa over the mastoid process.
c. Galvanism.
d. Excision of a portion of the paralyzed cheek. Proposed by Dieffenbach
e. Section of the antagonizing muscles. Also proposed by Dieffenbach.

III. ATROPHY OF THE GLUTEI MUSCLES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

To comprehend and to manage properly the deformities resulting from *rigid atrophy*, it will be necessary to consider each one separately. And first of

CLUB FOOT.

Definition.

Varieties.—1. Talapes varus, or inversion. 2. Talapes valgus, or eversion. 3. Talapes equinus. 4. Talapes calcaneous. 5. Talapes dorsalis or phalangeal.

Each of these *general divisions* may be subdivided into three groups, which I have termed degrees; for example, we have *first*, *second*, and *third* degrees of varus, &c.

Causes.—1. Congenital; 2. Acquired or accidental.

1st. *Or congenital.* Various theories entertained. The most rational is that now generally adopted, that unequal or irregular contraction of the muscles, by which their tendons and fascia are shortened, atrophied, and rendered more dense, is the proximate cause of the defect. In some cases, the extensors, in others the flexors are in fault, sometimes only one, sometimes several muscles are involved.—(Refer to some of the most ingenious theories on this subject.)

2d. *Or acquired.* Sprains, luxations, fractures, preternatural laxity of the ligaments, partial or complete paralysis of one set of muscles, their antagonists retaining their natural power and vigor, convulsions, habit of using certain muscles more than others, &c.

Foot most liable.—The right.

Sex most liable.—The male.

Variety most common.—1st, or varus.

Characteristics of each variety, and those of its various degrees.

Condition of legs and knees.

Dissection.—The appearances, of course, depend on the variety of the defect, its degree, cause, age, and the mode of life of the patient. Call attention to the bursæ, exostosis, anchylosis, and abrasions, often met with in cases of long standing.

Diagnosis.—Talapes equinus I have known mistaken for certain forms of contracted hip and knee.

Prognosis.—Depends on the *degree of contraction*, the *variety of the defect*, the *condition of the bones*, the *age of the patient*, the *character of the cause*, the *complication of the case*, and the *disposition of the patient* to submit to our remedies.

Treatment.—1. Prophylactic. 2. Treatment after the defect is fully established. It is rarely possible for us to employ the first, or remove causes operating even after birth. Under the second head several indications present themselves.

These are, 1. The application of such mechanical measures as shall bring the shortened muscles, tendons and fascia, to their proper position.

2. Where mechanical contrivances alone, and unassisted, fail to accomplish the first indication, we may next resort to the *knife*, *aided* by *mechanical measures*.

3. The third indication refers to the *retention* of the foot in its proper position, after the tendons, &c., have been elongated.

4. The fourth, to the application of such measures as shall give tone to the weakened muscles, and prevent the recurrence of spasms, or irregular contractions which would cause a relapse.

5. The fifth, to the *preparation* of the patient for treatment. Keeping those indications in view, which obtain in the treatment of all the deformities resulting from this cause, we shall next speak of the plan of treatment best suited to each *variety* of the defect, as it presents itself at *different* ages; but before so doing it will be well to explain the character of certain operations, to which I must refer in the management of the most of these cases. These are

MYOTOMY, TENOTOMY, AND APONEUROTOMY.

The history of these operations.
Their importance.
Their relative merits contrasted with mechanical treatment alone.
The manner in which muscles and tendons are united after these wounds.
The dangers of these operations.
The question of immediate separation of the divided organs discussed.
Manner in which the operation should be performed.

We are now prepared to take up the special treatment, and first of

CONGENITAL VARUS.

1. Congenital varus, 1st, 2d, or 3d degree at birth.
   " " " " 2d or 4th year.
   " " " " 6th, or any subsequent age.
2. Congenital valgus, 1st, 2d, or 3d degree at birth.
   " " " " 2d or 4th year.
   " " " " 6th, or any subsequent age.
3. Talapes equinus, 1st, 2d, or 3d degree at birth.
   " " " " 2d or 4th year.
   " " " " 6th, or any subsequent age.
4. Talapes calcaneous, 1st, 2d, or 3d degree at birth.
   " " " " 2d or 4th year.
   " " " " 6th, or any subsequent age.
5. Talapes dorsalis, 1st, 2d, or 3d degree at birth.
   " " " " 2d or 4th year.
   " " " " 6th, or any subsequent age.

CONTRACTED KNEE.

Varieties.

Muscles and tendons involved in each.

Causes of contraction.—1. Congenital. 2. Acquired.

Diagnosis.—May be confounded with the different varieties of anchylosis, dependent on other causes.

Prognosis.

Effects on the joint if neglected.

Treatment.—1. By mechanical means alone. 2. By section of the tendons, followed by the use of mechanical measures.

Condition of the joints after contraction is overcome, and the treatment required in this stage.

Dangers to be apprehended during the treatment of the case.

CONTRACTED THIGH.

Varieties.

Muscles and tendons involved.

Causes of contraction.—1. Congenital. 2. Acquired.

Diagnosis.—Often confounded with coxalgia when the flexors are involved.

Prognosis.

Effects on the joint if neglected.

Treatment.—1. By mechanical means alone. 2. By myotomy, followed by mechanical measures.

Condition of the joint after contraction is overcome, and the treatment required at this time.

Dangers to be apprehended during the treatment of the case.

CONTRACTION OF THE FINGERS AND TOES.

Varieties.

Muscles and tendons involved in each.

Causes of contraction.—1. Congenital. 2. Acquired.

Diagnosis.—May be mistaken for contraction of the fascia palmaris or plantaris, when the flexors are in fault.

Prognosis.—Depends on the *cause* and the *degree* of lesion sustained by the tendons.

Treatment.—Depends very much on the cause ; and we may require mechanical means as well as the knife for the relief of the difficulty.

CONTRACTION OF THE WRIST.

Varieties.

Muscles and tendons in fault in each.

Causes of contraction.—1. Congenital. 2. Acquired.

Diagnosis.

Prognosis.—Unfavorable generally.

Treatment.—The same general treatment applicable to the other cases of contraction, will answer here.

CONTRACTION OF THE ELBOW JOINT.

Varieties.

Muscles and tendons in fault in each.

Causes of contraction.—1. Congenital. 2. Acquired.

Diagnosis.

Prognosis.

Treatment.—The same general treatment is to be observed here as in the other forms of contraction.

CONTRACTION OF THE SHOULDER.

Varieties.

Muscles and tendons in fault in each.

Causes of contraction.—1. Congenital. 2. Acquired.

Diagnosis.

Prognosis.

Treatment.—The same as above.

CONTRACTION OF THE LOWER JAW.

Varieties.

Muscles and tendons in fault.

Causes of contraction.—1. Congenital. 2. Acquired.

Diagnosis.—Not to be confounded with adhesions, contractions from burns, or cicatrices.

Prognosis.

Treatment.—In almost every case of this defect it is necessary to divide the muscles before the different means usually employed can be used with any effect. (See the cases of Mott, Fergusson, Smythe and myself.)

TORTICOLLIS.

Synonymes.—Caput opstipum; wry neck.

Definition.—An involuntary and fixed inclination of the head towards one of the shoulders. It is sometimes intermittent.

Symptoms.

Causes.—1. Congenital. 2. Acquired.

First, or congenital.

a. Muscle or muscles on one side *too short.*

b. Paralysis of one set of muscles.

Second or acquired.

a. Hemiplegia.

b. Chronic rheumatism.

c. Fevers of long standing.

d. Chronic myositis.

e. Mechanical injuries.

f. Habit.

g. Palsy of extensors of the neck.

Muscles in fault.—Generally the sterno-cleido-mastoid, but the trapezius, platysma myoid, and, in short, the whole set of muscles on one side may be involved. It is supposed by some to be dependent occasionally on shortening of the *integuments* or *fascia* of the neck, but I have never met with an example.

Diagnosis.—May be confounded with *recent palsy* of the muscles, from blows upon the neck; with acute rheumatism; abscess in the neck; caries of the bones; tumors; old luxations; hydrocele of the neck, and curved spine.

Prognosis.—Depends on a variety of circumstances. State them.

Dissection.

Treatment.—Depends on the *cause, parts involved, and the duration* of the disease. Mechanical measures of various kinds, the knife, and constitutional treatment may all be required.

STRABISMUS.

Definition.

Muscles, tendons, and fascia in fault.

Varieties.—1. Convergent. 2. Divergent. 3. Upward squint. 4. Downward squint.

The first is most frequent, in consequence of the *internal* rectus being stronger than the *external*, from its insertion being nearer the cornea, and from the natural habit we have of looking *inwards* more than *outwards*.

Symptoms.

Degree.

Duration.—Occasional or permanent. It is also, in some cases, *voluntary*.

Eye generally attacked.—According to some, the *right;* according to others, the *left*. *Both* are often involved.

Mode of ascertaining which eye is diseased.

Effect on vision.

Causes.—1. Congenital. 2. Acquired. 3. Direct. 4. Indirect.

Diagnosis.

Prognosis.

Dissection.

Treatment.—Several indications. 1. Remove the cause. 2. Use mechanical means to correct the deformity. 3. Where these fail, resort to an operation.

History of this operation.

Cases to which it is applicable.

Mode of performing it.

Treatment after the operation.

Dangers of the operation.

Change in the muscular attachments.

Results of the operation.—1. Favorable. 2. Unfavorable.

First, or favorable.

a. Disappearance of deformity.

b. Improvement in vision.

Second, or unfavorable—

a. Operation fails to correct the deformity. Why?

b. The eye is everted.

c. The eye projects.

d. A relapse takes place.

Methods proposed to overcome these difficulties.

Appreciation of the operation.

K Cl - K and H Cl = K Cl and H ... KO, CO_2 + KCl
= KCl and KO and CO_2 $6KO^2 = 5KO$
Potass is Iodinum (KI) 6 I and [illegible] $5KO$
By unites with metals and forms bases and acids - the first are Basifiable and the other acidifiable metals - the Diffiatt also are divided in to Alkalies and ordinary bases - Fe, I and KO, CO_2 = KI + FeO, CO_2
Liquor Iodini is composed US -

Potassium Comp -

Mercury protox (HgO) Hydrog Oxy Hydrum - made By Hg Cl and KO = HgO and KCl in Hg Cl and CaO = HgO and Ca Cl the former gives yellow prot ox and Black protox by heat it may also be used officinal - two of prep which contain protox and metallic mercury in a very finely divided state - as in triturating with sacch or functions sub - as in Hydrag C. Cretaceum ox (HgO) a Red precip per se 6 precip and by Hg Cl + 2KO
C. Hyd Ox Rubrum - from which comes Hyg - HgO Ox Rubrum
made by gently heating mercury to heat vapor being condensed before it reaches the top of long mouthed alembic in form of red powder
Prot sulphuret (HgS) | when the HgS precipitated by nitric acid ~~the~~ it Rep, Nitric
Bisulphuret is off in Hydrag Sulph Rubrum US -
Bisulphuret with Sulphur is off Hydrag S. Nig and is Ethiops Mineral -
Bisulph is called artificial cinnabar, prin is the vermilion - prot sulph is made
Bi Chloride of mercury corrosive sub is off -
Hydrag Bi chloride US - Hydrag Chlorideum mite solution of ammonia vehicle for corrosive sublim.

LEUCITAS.

Definition.
Muscles in fault.
Varieties.
Symptoms.
Causes.
Diagnosis.
Prognosis.
Dissection.
Treatment.

The *third* form of atrophy is exceedingly rare, but when it occurs, it will of course give rise to a loss of function in the part or organ to which the muscle is attached The deformities to which it gives rise do not differ essentially from those occasioned by *simple atrophy*. (See Mayo.)

IX. SPASM OF THE MUSCLES.

Spasmodic affections of the muscles are exceedingly common, and referable in most cases, to primary irritation of the nerves of the part; but the disease may originate in the muscle, and gradually extend to the nerves. It is highly important, in forming our diagnosis, to distinguish the true cause, as the treatment chiefly turns upon this point. The permanent defects, resulting from this condition of the muscles, most frequently met with, are certain kinds of stammer, twitching of the muscles of the face, scrivener's spasm, rigid atrophy, and paralysis.

I. STAMMERING.

Definition.

Varieties.—1. Functional. 2. Organic.

Causes of functional.—Sometimes inappreciable; spasm of muscles, bad habit from imitation.

Causes of organic.—The tongue may be too large, too long, tied, or badly shaped. The fauces and roof of the mouth may also, when deformed, occasion a stammer.

Diagnosis.

Prognosis.

Treatment.—Various methods have been introduced, but of course the character of the cause will modify the treatment. There are four plans chiefly in vogue:—1. Vocal gymnastics. 2. Speaking with some hard substance between the teeth. 3. Acupuncture. 4. An operation.

History of these operations.
Different modes of operating described.
Appreciations of these operations.

II. TWITCHING OF THE MUSCLES OF THE FACE.

Varieties.
Causes.
Diagnosis.
Prognosis.
Treatment.

III. SCRIVENER'S SPASM.

Definition.
Causes
Symptoms.
Diagnosis.
Prognosis.
Treatment.

X. ENTOZOOA.

The muscles frequently become the habitations of parasitic animals, and especially of the *Cysticercus cellulosa*, and the *Trichina spiralis*, first described, I believe, by Mr. Owen, of London.

XI. MALIGNANT DISEASES.

The muscles, like all the other tissues, are liable to be attacked by the various affections to which the term *malignant* has been assigned.

VII. DISEASES OF THE ARTERIES.

I. WOUNDS.

Varieties.—Penetrating, non-penetrating, punctured, incised, contused, lacerated, &c.

Symptoms.—Depend on the nature of the wound, and the size of the vessel.

Prognosis.—Depends on character of the wound, size of the vessels, and the diathesis of the patient.

Diagnosis.—May be confounded with wounds of veins.

Results.—The hemorrhage may cause death, unless arrested by the surgeon, or by an effort of nature; the wound may close, and the circulation continue in the limb, as before; or the circulation may be so much impaired as to occasion gangrene; and finally, aneurisms of different kinds may be developed.

Mode of healing.—Varies with the kind of wound.

Treatment.—See incised wounds.

II. ARTERITIS.

Definition.
Comparatively rare.
Varieties.—1. Subacute. 2. Acute. 3. Chronic.
Causes.
Symptoms of each variety.
Diagnosis.
Prognosis.
Dissection.
Products.
Treatment.

Aneurism a tumor filled with blood and communication directly or indirectly with an artery - 1. 2. 3. Internal & Esternal 4.
True aneurism where blood is contained in one or more of the coats great diversity of opinion among pathologists differ, we may have any one coat - or all of them - forming the investing sac - An artery may be dilated but yet may not be an aneurism - have a circumscribed tumor - consisting of all the coats of vessels & false aneurism ~~arises~~ ~~the~~ arises from wounds the blood being outside the coats of vess and forming its sac there - Varicose is composed of true & false where the tore bursts and a false aneurism is formed in consequence 9. Diffused circumscribed & dissecting - 2 per C - must be owing to Dose where the limits are easily defined most simple and easy of treatment - Diffused where blood is thrown out and diffuses in the tissues - Dissecting generally occurs in aorta where the blood forces the aneurism forms and burst and dissecting the coats of the aorta must kill the patient a small vessel permitting blood to get out. Into Varicose aneurism & Arteriovenous being this last generally developed by bleeding ~~in~~ lancet passing through the vein into the artery by the

III. DEGENERATION OF TISSUES.

The arteries undergo a variety of pathological changes termed "*degenerations*," the causes of which are often obscure, but usually may be referred to the pre-existence of inflammation. The most common of these degenerations are: 1. Cartilaginous or osseous deposites between the lining membrane and the proper tissue of the vessel. 2. Thickening of the lining membrane. 3. Ætheromatous deposites in different portions of the vessel. 4. Steatomatous deposites. 5. Ulceration. 6. Softening.

Diseases produced by these changes.—1. Dilatation; 2. Hypertrophy with dilatation; 3. Contractions; 4. Rupture; 5. Obliteration; 6. Aneurism.

DILATATION.

Parts of the vessel usually involved.
Vessels most liable to be affected.
Effect on the shape and size of the vessel.
Symptoms by which it may be recognized.
Diagnosis.
Prognosis.
Treatment.

HYPERTROPHY WITH DILATATION.

This condition is seen in the uterine arteries during utero-gestation, in aneurismal varix, and in aneurism by anastomosis or vascular nævi.

CONTRACTION.

A diminution in the capacity of an artery has been observed by Morgagni, Desault, Laennec, Mayo, Elliottson, Baillie, and others. The defect is usually met with in the larger vessels.

RUPTURE.

This is the result of some mechanical cause operating upon a vessel weakened by some of the different forms of degeneration. Its occurrence may result in the death of the individual, or the establishment of an aneurism.

OBLITERATION.

A variety of causes may produce obliteration, but inflammation may be considered the most common. The results of this condition of a large artery, are *gangrene*, *paralysis*, and sometimes death.

IV. ANEURISM.

Definition.

Varieties.—1. Spontaneous. 2. Traumatic. 3. Internal. 4. External. 5. True. 6. False. 7. Mixed. 8. Circumscribed. 9. Diffused. 10. Dissecting. 11. Varicose. 12. Aneurismal varix. 13. Aneurism by Anastomosis.

Breschet's classification.—1. Sacciform. 2. Fusiform. 3. Cylindroid. 4. Varix like.

Number.—Varies in different individuals. Usually but one. May have several, as in the cases of Pelletan and Cloquet.

Causes.—1. Predisposing. 2. Accidental, or proximate.

First, or predisposing:

a. Disease of the coats of the vessel. (See degenerations.)

b. Sex. Male most liable.

c. Age. Old persons most liable.

d. Location of vessel. Vessels of the lower limb most liable.

e. Vocation. Laboring classes most liable.

f. Size of the artery. Large more frequently affected than the small.

Second or accidental.

a. Some violent exertion.

b. Wounds.

c. Ulceration of the coats of vessel.

Symptoms.—1. Constitutional. 2. Local. Both classes modified by the *location*, *variety*, *size*, and *duration* of the tumour.

Diagnosis.—The diagnosis is not difficult in the early stages of the complaint. As the tumour becomes solid it is more uncertain. An aneurism has been confounded with an abscess, tumours of different kinds situated near large arteries, dilatation of Arteries, and diseases of different organs.

Prognosis.—Influenced by circumstances. It is, under all circumstances, however, to be considered a most formidable disease—usually requiring an operation for its relief, although nature is occasionally competent to the task of "spontaneous cure."

Progress of the disease.—Great diversity in this respect. Sometimes it runs its course rapidly; and again, years may elapse before a fatal result takes place.

Effects of an aneurism on surrounding structures.

State of the blood in the aneurismal sac.

Changes which take place in the sac as the disease advances.

Terminations of the disease.

a. Spontanous cure.

b. Death from hemorrhage.

c. Death from exhaustion.

d. Death from direct influence of the tumour upon some vital organ, as the brain, &c.

Processes by which a spontaneous cure is accomplished.

a. Obliteration of the sac by concrete fibrine.

b. Obliteration of both sac and artery by fibrine.

c. Pressure on the trunk of the vessel by the tumour itself.

d. Inflammation, suppuration, and sloughing of the sac, and a portion of the artery.

e. Bursting of the sac, the effusion of blood under the adjacent tissues, and the subsequent coagulation of this blood, which, pressing upon the artery, causes its obliteration.

Treatment.—The indication in the treatment of every case of aneurism of the usual kind, is to cause an *obliteration of the artery involved.* To carry this indication into effect, *two general modes of management* have been introduced:—1. The first has for its object the *diminution of the force of circulation*, so that the blood may coagulate in the tumour, and the artery contract. 2. In the second we attempt a *complete arrestation* of the circulation through the part, by *the obliteration* of the *vessel by some mechanical measure or surgica operation.*

and give rise to a pulsating tumor — the venous aneurism differs in the communication being indirect through a tumor between the two — and last aneurism by anastomosis — it is an erectile tumor — consisting of an congeries of vessels held together by cellular tissue — Broschet has taken the shape of tumor as a base of classification for nothing. No of tumors is various in false extravasate generally have but one but if spent aneurs may have several, have cases of anomalous patients the treat will turn on it. treat division into 2 groups Endog and Exogenous aneurism where the aneurism is true it is Endog where false it is Exog — causes predisposing and exciting — 1st for Predis — a Disease of vessels fatty degen — b — sex male more exposed c — age nearly always spontaneous in old. d Location of vessels very useful in diagnosis — e vocation resistance and strong predisposing — f size larger more unlikely 2 — Exciting causes a Emotion of mind they sometimes lacerate it may pulsations of heart shrieks out that heart is broken. b some well a & wounds, c — ulceration of coats — Symp Cons — & Local. 1. Intramural aneurism no constitutional disturbance unless formation in consequence of pressure of tumor. 2nd Has an indescribable sensation Malaise and the greater excitement in smallest causes with constitutional symp are uniform Local phenomena — pulsation and a peculiar thrill gives pain sometimes and in early stages always, may have Rupture pain of pressure on the nerve

when can cause the pulsation of tumor to cease by pressure on the artery — though sometimes the diagnosis can not be certain. Prog is grave in all cases but in some more grave than in others when depends on some constitutional cause. Don't commit yourself in prognosis - Progn generally slow coming on for many years - may have it develop rapidly as it grows forms adhesions and parts adjacent are gradually absorbed in consequence of the pressure of the blood by progressive absorption - a common result - a tumor grows through the bone the integuments form adhesions which become absorbed and in course of time it gives way - as it increases in size the blood becomes deposited and even sometimes effects a spontaneous cure. Termination a — is very rare owing to a coagulum filling up the opening of sac - the fibrin may be deposited to such an extent that blood cannot get into it, accasionally when inflam sets in and the lymph poured may fill up the sac and accomplish a radical cure, Sloughing may cure if the slough separating giving rise to lymph - b when left to itself generally terminates in death - by hemorrhage must trust to nature c — the tumor in back may compress stomach and he may die from exhaustion

Treatment - never treat if he has any other disease of serious nature - and in treat no exce
To cut off supply of blood may take away
gradually or at once - a diminution of the
cause of circulation is sometimes the only plan
treatment of Valsalva to internal aneurism
diminish the ~~aneurism~~ action of heart put the
patient to bed and starve him nearly to death
never give him more than 3 or 4 oz of food at
time abstract fluid and hence keep away
water let him suck a piece of ice and take
abstract blood and give internal acetate
of lead opii if it purges or purges and by
small doses of digitalis don't bleed continually
if full and plethoric bleed several times
local application of tumor painful and long
action of Dr Hennison passing through the
sitz - This is the operation in all internal
aneurism - Surgical measures - Compress
old of all in a variety of ways in cardiac
side and has again been used on the opposite
Inflammation and sloughing always results
in this plan - 1843 - Dr Busse Gillingham intro
duced alternate compression object to Dennison
almost entirely - In aneurism by compression
use the tourniquet of Chancre - put one pad
on artery and other on opposite side of the
limb one below and the other below -
loosen one and tighten the other alternately
while the patient can bear it use a
roller bandage between the two to prevent
the swelling of the limb. Excellent plan
acts by throwing the blood into an extensive
circulation and works by preparing bulk

for an operation hence should always employ this first - Leg was not well understood until time of Hunter the operations before him the operations were very crude and dangerous consisting of opening the artery and applying the hot Iron - Hunters Oper was a big one cardiac side sometimes cant tie the art on other side where this cant be done Midops method next in rareness Aneurism its necessary sometimes to tie both above and below the artery
Hunters oper - Lay down a rule make as little dissection as possible in case we destroy vasa vasorum - tie as near tumor as possible to prevent the possibility of an anastomosing branch passing over and giving rise to tumor & where the art branches above the tumor, see that the patient is in such a position that the pulsation will go on favorably - Ligure when art and vein passes by an unusual route tie above tumor - the effect on tumor is with shrunk pulsation with ease the limb gets cold, little pain in tying and little inconvenience from 2 to 24 hours the limb gets not just warm limb in cotton and cover the patient don't take off the cotton Keep the limb elevated -

First, or, as it is called, the method of Valsalva.—Agents employed under this head—

General remedies.—1. Barely sufficient nourishment to support life. 2. Rest in the horizontal position. 3. Small quantity of fluid in the diet. 4. Digitalis and the antimonials. 5. Venesection.

Local remedies.—1. Leeches. 2. Astringents and refrigerants. 3. Ice. 4. Long seton.

Second method.—Agents employed under this head—1. Compression. 2. Ligature of the vessel or vessels. 3. Application of the actual cautery—(employed by Severinus, Monteggia, Sir E. Home, and others.) 4. Injecting the sac with some fluid which produces coagulation of the blood—(proposed by Wardrop.) 5. The introduction of needles, or a seton, into the sac—(Pravaz, Philips, &c.) 6. The use of needles and galvanism at the same time—(Keate and Faraday.)

COMPRESSION.

Mode of applying compression.—Two or three methods—1. That of *Vernet*, on the *capillary* side of the tumour. 2. That of *Guatanni* along the artery, *above* the tumour, and on the tumour itself. 3. General pressure over the whole limb.

Agents employed.—Tourniquet, bandage and compress, starch bandages; plaster of Paris mould, compressor of Dupuytren, compressor of Sunfio, &c.

Modus operandi of compression.

Objections to its employment.

Appreciation of the method.

LIGATURE.

Not properly employed until the time of Hunter. Before this period the operations for the cure of aneurism were rude and dangerous. By some, the sac was opened, the contents turned out, and compresses or the actual cautery applied to arrest the hemorrhage. By others, the sac was emptied, and then an attempt made to tie the bleeding vessels. By others, Aetius, Philogius, Guillemeau, &c., the artery was tied *above* and *behind* the tumour, the latter then opened, and the vessels tied. The dangers of these measures have induced surgeons to abandon them, and we now choose, when an operation is decided upon, between *three different methods* of *applying* a ligature. These are—

1. The operation of *Hunter*. The ligature is here placed on the *cardiac* side of the tumour, or *above* the sac.

2 The operation of *Brasdor*. The ligature is here applied on the *distal* side of the tumour, or between it and the capillaries.

3. The operation of *Wardrop*. The ligature is here applied to *a branch* of the diseased artery on the capillary side of the tumour.

HUNTER'S OPERATION.

Mode of performing it.

Instruments required.

Cautions to be observed in the application of the ligature.

Immediate effect upon the tumour when the ligature is properly placed.

Subsequent effect on the tumour.

Immediate effect on the limb.

Subsequent effect on the limb.

Time required for the establishment of anastomosing circulation.

Effect on the general System, and especially the brain.

Dressing the wound.

After treatment of the case.

BRASDOR'S OPERATION.

Mode of performing it.
Instruments required.
Cautions to be observed in the application of the ligature.
Immediate effect upon the tumour.
Subsequent effect.
Immediate effect on the limb.
Subsequent effect.
Time required for the establishment of the anastomosing circulation.
Effect on the general system.
Dressing the wound.
After treatment.

WARDROP'S OPERATION.

Mode of performing it.
Instruments required.
Cautions to be observed in the application of the ligature.
Immediate effect on the tumour.
Subsequent effect.
Immediate effect on the limb.
Time required for the establishment of the anastomosing circulation here.
Effects on the general system.
Dressing the wound.
After treatment.

Accidents which may follow the performance of either of these operations:

a. Convulsions.
b. Fever.
c. Secondary hemorrhage.
d. Increase in the size of the tumour.
e. Rupture of the sac.
f. Gangrene of the tumour.
g. Gangrene of the limb.
h. Chronic inflammation and subsequent ulceration of the artery or sac.
i. Plethora.

Peculiar advantages of the different operations discussed.

CAUTERY—INJECTION—NEEDLES—GALVANISM AND ACUPUNCTURE.

These different modes of treatment have recently been introduced into general practice, and, although one or all may prove more or less useful as adjuvants to other remedies of more importance, it is hardly probable that any thing more than this will ever be claimed for them.

Appreciation of all the various methods of treatment for aneurism.

TRAUMATIC, OR FALSE ANEURISM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VARICOSE ANEURISM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

ANEURISMAL VARIX.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

ANEURISM BY ANASTOMOSIS.

Synonymes.
Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Progress.
Dissection.
Treatment.—1. Compression. 2. Ligature of main arterial trunks. 3. Encircling the tumour by incisions. 4. Seton. 5. Breaking up cells. 6. Puncture, followed by caustic probe. 7. Puncture, and injection with some stimulating liquid. 8. Vaccination. 9. Caustic potash. 10. Nitric acid 11. Tart. antim. 12. Actual cautery. 13. Incisions under the skin. 14. Acupuncture. 15. Darning. 16. Ligature of the whole mass. 17. Excision. 18. Tattooing.

OSSEOUS ANEURISM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. PARTICULAR ANEURISMS.

The symptoms and treatment of each one described.

VIII. DISEASES OF THE VEINS.

I. WOUNDS.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Results.
Mode of healing.
Treatment.

II. RUPTURE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

III. INFLAMMATION, OR PHLEBITIS.

Varieties.—1. Acute. 2. Chronic.

Causes.—1. Constitutional. 2. Local.

Symptoms.—Vary with the intensity of the attack. They may be divided into the *constitutional* and *local.*

Diagnosis.

Prognosis.

Dissection.

Effects resulting from phlebitis.—Obliteration of the vein, visceral abscess, œdema, ulceration of the vessel, calcareous deposites, &c.

Treatment.—1. Constitutional. 2. Local.

IV. AIR IN VEINS.

Effect produced by the introduction of air into the veins.
The manner in which it gains admission.
The causes of convulsion and death in these cases.
Means of preventing its introduction while an operation is going on.
Treatment in the event of its introduction.

V. VARICOSE VEIN.

Nature.

Location.

Extent.—The dilation may be *uniform* or *unequal*, and involve a *portion of*, or the *entire vein.*

Causes.—Anything that will prevent a free circulation of the blood through the vein.

Symptoms.
Diagnosis.
Prognosis.
Dissection.
Results.
Treatment.—1. Palliative. 2. Radical.

Agents employed as Palliatives.—1. Compression with rollers or straps, or both, or laced stockings. 2. Frictions with iodine ointment, or Davis's solution of iodine; repeated blisters. 3. Galvanism. 4. Puncture of the vein.

Agents employed with a view to a radical cure.—1. The ligature. 2. The needle and ligature, as used by Davat, Velpeau, and others. 3. Caustic paste which occasions a slough—(recommended by Cartwright, Mayo, &c) 4. Transverse subcutaneous incisions, followed by compression—(Brodie.) 5. Excision, followed by compression. 6. Acupuncture. 7. Seton. 8 Subcutaneous ligature—(Ricord.) 9. Irregular compression with graduated compresses and a bandage. 10. Position, rest for several months.

Dangers of these measures.

Appreciation of the different methods.

VI. OSSIFICATION.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

VII. PHLEBOLITES.

Definition.

Veins in which they are usually found.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Chemical composition.

Treatment.

VIII. MALIGNANT DISEASES.

The veins are frequently involved in the different malignant diseases which attack all organized tissues.

IX. DISEASES OF THE LYMPHATICS.

I. WOUNDS.

Varieties.

Symptoms.

Diagnosis.

Prognosis.

Results.

Mode of healing.

Treatment.

II. RUPTURE.

This lesion is stated to have occurred in a patient of Guiffort's, but the symptoms are too obscure to merit our attention. It was supposed by Morton to be one cause of consumption; by Ackermann, to exist in scrofula; by Hendy to exist in Barbadoes leg; by White it was considered the cause of phlegmasia dolens; by Assalani and others it was reckoned the cause of dropsy; and Brombilla thought it the cause of white swelling.

III. VARICOSE DILATATION, OR CIRSUS.

A rare and obscure lesion, present usually in dropsy and some other complaints. As it is an *effect*, it can only be relieved by removing the cause on which it depends.

IV. OSSIFICATION.

Like the arteries and veins, these vessels are liable to calcareous deposites in their coats.

V. ANGEIOLEUCITIS, OR INFLAMMATION.

Varieties.—1. Acute. 2. Chronic.

Causes.—1. Direct. 2. Indirect.

Age most liable.—Puberty and old age.

Symptoms.—1. Local. 2. General.

Diagnosis.—May be confounded with *phlebitis*, *neuritis*, *neuralgia*, *erysipelas*, and *phlegmon*.

Prognosis.—It is to be considered generally a dangerous disease.

Progress and duration.—Variable.

Terminations.—Resolution, suppuration, induration, ulceration, sloughing, death.

Dissection.—Three classes of phenomena to study.

1. Those which take place in the vessels.

2. Those which take place in the interposed tissues.

3. Those which take place in the viscera, remote regions, and blood—(Velpeau.)

Treatment.—1. Constitutional. 2. Local.

VI. INFLAMMATION OF LYMPHATIC GLANDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Terminations.
Treatment.

VII. ENLARGEMENT AND INDURATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Terminations.
Treatment.

VIII. OSSIFICATION.

Usually the result of inflammation, and the glands most liable are those of the lungs.

IX. MALIGNANT DISEASES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Terminations.
Treatment.

X. CONSEQUENCES RESULTING FROM THE EXTIRPATION OF A LARGE NUMBER OF GLANDS.

X. DISEASES OF THE NERVES.

I. WOUNDS.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Mode of healing.
Treatment.

II. STRETCHING AND RUPTURE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

III. NEURITIS.

Varieties.—1. Acute. 2. Chronic.

Causes.—1. Constitutional. 2. Local.

Symptoms.—Depend upon the nature of the attack.

Diagnosis.

Prognosis.

Dissection.

Terminations.—Resolution, effusion of lymph, ulceration, hypertrophy, atrophy, hardening, softening.

Treatment.

IV. NEURALGIA.

Definition.

Varieties.

Causes.—1. Those which act upon the nerve itself. 2. Those which operate through the system at large.

Symptoms.

Parts most liable to be attacked.

Diagnosis.

Prognosis.

Pathology.

Treatment.—Indications—1. Remove the cause, whether *constitutional* or *local*. 2. Palliate the pain. 3. Divide the nerve. 4. Excise a portion of the nerve. 5. Acupuncturation. 6. Electro-magnetism, &c. 7. Moxa, &c.

V. ANOMALOUS NERVOUS AFFECTIONS

These vary in character; and of course the treatment must be based upon the peculiarity of each.

VI. HYSTERICAL NEURALGIA.

Definition.
Persons most liable.
Parts most liable to be attacked.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

VII. TUMOURS.

Varieties.—Solid, or encysted.

Location.—In the neurilema; between the superficial fibres of a nerve, or they may implicate all the fasciculi at the part attacked; and again, they may be developed upon the extremity of a divided nerve in the shape of a little button. Lastly, they may occupy the large and deeply seated nerves, or the superficial and cutaneous; when developed in the latter situation, the tumour is called "*painful subcutaneous tubercle.*"

Causes.—Blows upon the part, the application of a ligature, &c.

Symptoms.—Depend upon the location of the tumour. They belong, however, to the class of "nervous symptoms," general as well as local.

Diagnosis.
Prognosis.
Pathology.
Treatment.—1. Palliative. 2. Radical.

Palliative means—
a. Leeches.
b. Counter irritation.
c. Fomentations.
d. Anodynes.

Radical means—
a. Division of the nerve above the tumour.
b. Extirpation of the tumour.
c. When the tumour is a *cyst*, puncture followed by compression.

Condition of the limb after the removal of a portion of the nerve.

VIII. TETANUS.

Definition.

Varieties as to muscles affected.—1. Opisthotonos. 2. Emprosthotonos. 3. Pleurosthotonos. 4. Trismus, or locked jaw.

Varieties as to cause and duration.—1. Traumatic. 2. Idiopathic. 3. Acute. 4. Chronic.

Causes.—1. Constitutional. 2. Local.

Symptoms.—Vary with the location as well as the intensity of the attack. General symptoms stated.

Diagnosis.
Prognosis.
Pathology.
Treatment.—1. General. 2. Local.

IX. PARALYSIS.

Definition.
Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

X. OTHER ORGANIC LESIONS.

The nerves, like the other tissues, are liable to hypertrophy, atrophy, hardening, softening, ulceration, and malignant diseases of various kinds. But these lesions are rarely recognized until after death, or they give rise to the phenomena already referred to as characteristic of diseases to which specific names have been assigned.

XI. DISEASES OF THE CELLULAR TISSUE.

I. SIMPLE INFLAMMATION.

See "Inflammation."

II. PHLEGMON, OR CIRCUMSCRIBED INFLAMMATION.

See "Phlegmon."

III. ERYSIPELATOUS INFLAMMATION.

See "Erysipelas."

IV. CARBUNCLE.

See "Charbon or Carbuncle."

V. ABSCESS.

See "Abscess."

VI. HEMORRHAGE.

Causes.—Mechanical injuries, and diseases of a peculiar character, as purpura, scorbutus, typhus, &c.
Character of the blood.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

VII. SEROUS EFFUSION.

Synonym.—Œdema, anasarca, aqua intercus, leucophlegmasia, &c.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Different kinds of serum effused.
Treatment.

VIII. INDURATION.

Synonym.—Scleroma, skin-bind.
Persons most liable.—Children.
Causes.
Symptoms.
Duration.
Prognosis.
Diagnosis.
Character of the tissue.
Treatment.

IX. EMPHYSEMA.

Synonym.—Pneumatosis spontanea et traumatica.
Causes.—Mechanical injuries, and sometimes it occurs spontaneously.
Parts of the body most liable to this collection.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

X. TUMOURS OF DIFFERENT KINDS.

See "Tumours."

XI. CONDENSATION INTO CYSTS.

Causes.
Indications that they have formed.
Uess of these cysts.

XII. DISEASES OF THE ADIPOSE TISSUE.

I. INFLAMMATION.

See "Inflammation."

II. WOUNDS.

See "Wounds."

III. HEMORRHAGE.

Causes.
Character of the blood.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

IV. HYPERTROPHY, OR POLYSARCIA.

Varieties.—1. Partial. 2. Complete.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Dissection.
Treatment.

V. ATROPHY.

Varieties.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

VI. TUMOURS OF VARIOUS KINDS.

See "Tumours."

Diseases of the *Skin*, *Hair*, *Nails*, and *Teeth* cannot be embraced in a course so rigidly restricted to the *most important* points in Surgery; they will, however, be found in my work on Surgery.

THIRD DIVISION, OR DISEASES OF REGIONS AND ORGANS.

I. INJURIES OF THE HEAD.

I. WOUNDS.

Importance of these injuries.
Classification.
a. Wounds involving the scalp alone.
b. Wounds involving the scalp and bones.
c. Wounds involving the brain and its membranes, as well as the scalp and bones.

a. SUPERFICIAL WOUNDS.

I. INCISED WOUNDS.

Causes.
Symptoms.
Prognosis.
Results.
Treatment.

II. LACERATED WOUNDS.

Varieties.
Causes.
Symptoms.
Prognosis.
Results.
Treatment.

III. CONTUSED WOUNDS.

Causes.
Symptoms.
Prognosis.
Results.
Treatment.

IV. PRODUCTS OF CONTUSED WOUNDS.

a. BLOODY TUMOUR.

b. SUPPURATION BETWEEN SCALP OR PERICRANIUM AND BONE.

c. SEPARATION OF DURA MATER.

Wounds in Scalp - great danger in small wounds - if young are to Erysipelatous inflam - dont use stitch if can avoid, always shave head if by - cover under wash with Argenti Nitras - and if Neuralgia cut off the nerves - ~~very~~ head with Ung Veratrum and

Lacerated Wounds -

Treat - wash shape - bring all the shreds and unite with Stitches and adhesive - Straps purge least exert. bleed - put on Antimonials and keep down the heart -

Contused wounds

Gradually echymose, are among most serious wounds of head by gradual swelling hard tumour in edges and soft in centre little sore though not intense pain - Treat, avoid if possible opening scalp shave the head keep down fever. May be converted in abscess. If after Antiphlogistics treat dont bring on constitutional symp - let it alone, if converted into pus open immediately - Never open only when forms a solid tumor lay open and take out

Sometimes confounded with
pacture, very serious danger if
Inflam. dev. on head between
the pari cran and scalp —
Comes on by tenderness swelling
nausea — fluctuation — pain
increase — let out pus immed —
if disturbance nervous — dont wait
warm fomentations applied —
Another very serious Comp —
a blood causing — moroseness
memory affected appetite
leaves him — and having
a sort of inconvenienced pain
low grade fever pulse the
inflammation is going on —
and pus is forming dont
wait — try first simple means
purge give mercurials keep
back bowels — If not — gets in
and convulsions brought on
bleed him — lessens the amount
of blood in brain — feel skull
shave it if feel tender or puffy
spot cut to bone — take a
trepine and cut through
the bone — an let out pus — If
no indication when to trepine
if they come too whole flow —
has given. Often the head
one side or other and

we relieve the patient don't live more than one hole, and resort to mucurrals. (Punctured wounds) shows had close an acute phlegm — wound tamponed away —

recognize by pulsation — may cease to pulsate, let alone and pulsation may come back attend completely compress impeded — lowdown if don't — cut for trunk when you can get at without difficult.

Penetrating wounds — may be complicated — with laceration inosum when of tract foreign body generally have only to look for inflammation — gets away foreign body if can be done when pure some is cut out and unions pungency in pronunciation Rat and when brain is stayed — If simple cut pick away, spic approximate edges bore out for pus and let a small rolls put a little strip lint at out injury — 2 — if bone be bottom into frag — take away and bruised seals back and adhes — If bone not comm. bring bone back and sometimes attended by lipement — 3 the loss of brain mood prog — anest pain by comp — and wild

Where the brain is exposed and
no scalp and no bone make
a double cut - and bring the
edges together ("Ulcera Cerebri")
The first hernia will be blood
and bone if week or 10 days
have blood and last brain
in it take away an if pram
try and put it back by lime
water and compression bone
shave off and supply lime
water

mass – apply lime water and give give Mercury to reduce plasma of the blood – antiphlogistic – nearly always die – prognosis cautious

Wounds occurring in young girls only Antiphlogistic treatment —

VI - never compress over the Zygoma - tie it as near inferior margin of Zygoma —
III - Form bursting gun - recent case of bullet entering forehead and lodge in brain - after perfectly sensible free from pain himself no fever - until 3 day when inflammation set in and he died - never try to get the bullet out - may become insert unless very superficial - dress close the wound cover up with lint in warm water - if any foreign body gets into brain let alone - Cut on the skull sometimes cuts away piece of longitudinal sinus is cut after arrest hemorrhage by pledget lint tied over part or by circular ligature (a dangerous practice) - Hernia Cerebri
Where patient has lost piece of brain and favorable symptoms - in 1st we find the brain pitting out - very terrible complication - here in these cases much pulsation rational is not aberration generally - if push back with little pressure - keep every thing like this away - fungus of brain - get rid and hinder the brain to prevent - cut off the

V. PUNCTURED WOUNDS.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Results.
Treatment.

VI. WOUNDS OF TEMPORAL ARTERY.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Results.
Treatment. - the ut. artery - or Com pressure

b. WOUNDS INVOLVING THE SCALP AND BONES.

I. INCISED, LACERATED, CONTUSED, OR PUNCTURED WOUNDS.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Results.
Treatment.

II. PENETRATING WOUNDS.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Results.
Treatment.

III. GUN-SHOT WOUNDS.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Results.
Treatment.

c. WOUNDS INVOLVING THE BRAIN AND ITS MEMBRANES, ETC.

Varieties.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Results.
Treatment.

ENCEPHALOCELE AN OCCASIONAL PRODUCT OF THESE WOUNDS.

Definition.
Symptoms.
Prognosis.
Diagnosis.
Results.
Treatment.

II. DISEASES OF THE SCALP, &c. &c.

I. ERYSIPELAS.

See "Erysipelas."

II. ANTHRAX.

See "Anthrax."

III. TRAUMATIC NEURALGIA.

See "Neuralgia."

IV. PERICRANITIS.

V. THICKENING OF PERICRANIUM.

VI. TUMOURS OF THE SCALP.

See "Tumours."

III. FRACTURES OF THE BONES OF THE HEAD.

Causes.
Varieties.
Parts of the cranium most liable to fracture.
Age most liable.
Symptoms.—Depend on location of fracture, &c.
Prognosis.
Diagnosis.
Mode of union.
Treatment.

IV. CONCUSSION.

Definition.
Extent or degree.
Causes.
Symptoms.—Three groups—1. Stunning. 2. Loss of consciousness, &c. 3. Convulsions, &c.
Prognosis.
Diagnosis.
Anatomical examination.
Results.
Treatment.

Fractures of Bones of head –
portions more liable than others to
fracture owing to difference of tissue
careful in diagnosis – the force may be
transmitted to temple from occiput – forehead
fracture orbital plates – top of head the base of
skull – often from force indirectly applied by
counter stroke – Simple fissure by sharp inst
sometimes cracks on other side is Counter fissure
old Hydra. Multiple fracture not comminuted near
only so in long bones – Comminuted fracture where
the edges come together by being driven in
or drawn depressed fracture – Simple depressed
fracture where one edge driven in –
Stellate – where centre is depressed and
number of fractures passing off in radii
generally in internal table – In young
head subject never happens – depression
in young subject will bend and remain
depressed and will disappear in a day
or so – not so in adult – always have pulsation
premature is always obliterated – gutter wound to
disease or malformation aid in diagnosis
Symptoms depend on character and
location – Some have peculiar symp
in blow on occiput fracturing the
bottom portion of temp – always have
compression or concussion discharge
from ear of blood and serum – from the
brain or lateral sinus or brain – may
rupture of membrane symp and may
infund here the amount of blood is
too small

may compound — no more where the fracture is complicated with injury of Emphysema — distortion of eye — fracture of orbital plate — fracturing the most difficult is simple Hydra — 1st thing pr day spare head pass hand over it and sometimes rough — again no sign but effusion of blood — if can't find out must treat like fracture. In depressed no difficulty in diagnosis — Compound often could have injured —

Treatment — don't trephine for simple fracture unless extravasation blood. if there is compression — Antiphlogistic and and by mercury to diminish plasma of the If very much depressed and no injury of entry — if symptoms of compression trephine — if not don't if open part trephine to elevate as can't make him worse — Fracture of base ulty in same agents as in hydra patient generally dies — blood & cols of Orbital plate don't open entry if can help — suck out thrombus & make cold apple — if can see cond eye is safe don't open skin — prontal wound bones — Emphysema — open penetrate 3 in from seat of injury squeeze the air out — If depression of the outer table don't elevate unless compound fracture get out pieces

Concussion - Where the brain in consequence of a blow or shock of some kind is deprived of its power of sending forth and appreciating nervous communication. Extent of the concussion will depend on the violence of the injury and upon the place of its reception - there being three conditions which give separate sets of symptoms - 1st Where we have simple oscillation of the Brain 2nd Where the brain has been violently shaken and in consequence we have separation of the Dura Mater from the bone - 3 Where the injury has been so severe as to produce laceration of some of the fibres of the brain - Causes - violent blows upon the head - fractures, the depressed bone resulting from such injuries, the transmission of shocks through the bones - Symptoms - in first form the person is merely stunned and he will be incoherent in his answers, will suffer from vertigo, but if he spoken is capable of replying, he possesses volition but sensibility is not precisely in his right mind - 2nd form - These symptoms are aggravated complete unconsciousness is a result - and as marked symptoms absent in both of the other forms exists in the presence of Nausea and vomiting. In 3rd form - we have complete paralysis of the bladder and rectum or generally paralysis of one or of both sides. Prognosis In simple stunning favorable though should be guarded for patients have in consequence of such injuries lost the bones through caries of the bone the formation of pus

Comp-ness —

If blood-loss every thing to absorb blood stimulate respiration, stimulate circulation, keep continued. If can't control pain, If shaking and not fracture look for seat of injury. If paralysis on one side of body have a guide, sometimes have no guide, always justify recourse to morphine, don't quite be in regular and bone or the entire. Look is a purple ish tumor if found only hemorrhage if bear surface cut feel it move see knife, after treat in antiseptic and clean, Drain. If pus - If found dear up morphine more. Do open up found in first instead of in the hands of transfilt for fluctuation

Operation morphine —

Concussion Diagnosis is sometimes difficult but generally by critical attention and the exercise of judgment it may be accurately made out - In simple stunning it is simple enough though we can not exactly tell the lesion that may be going on underneath the bones - Treatment In stunning, cold water swallowed in small quantity the placing of the patient in an horizontal position - and in the bad cases the moderate use of stimulants will be sufficient to produce reaction - never bleed before this comes on - may kill the patient by doing so - Stimulants must be used with extreme caution since by their employment we risk aggravating the subsequent reaction - Trepanning may sometimes become necessary though if the lesion is so violent as to warrant the measure the patient has small chance of recovery - The proper means of doing this will be described under the head of treatment for compression -

Compression - Some agent - capable by undue pressure on the brain gives rise to the observation of the symptoms as the formation of a clot the effusion of serum in the ventricles - The brain may become accustomed to this pressure and the symptoms disappear - The lesion will be gradual if the cause is slow - When sudden have functional disturbance and organic lesion - in the case more favorable prognosis - symptoms ~~before~~ stupor, slow laborious pulse deep breathing - dilatation and contraction of pupil - Pulse of apoplexy of blood and death paralysis of one side of body - The instant case the causes - We will give no diagnosis -
If told patient walked about and no depression have blood if have depressed pressure - If old case 10 or 12 days and marked observation ~~to the~~ ~~[illegible]~~ - If have no fever have blood - or serum - If have a chill almost power positive has pus developed - Prognosis If sudden depression - favorable always leave a wrong bone - If have coagulum in brain small sometimes wrong - If on side located, could take ~~if~~ the open brain - When the free open - good not with course

V. COMPRESSION OF THE BRAIN.

Definition.

Illustration of the influence of pressure upon the brain.

Causes.—Depressed bone, effused blood, collection of pus, &c.

Symptoms.—Depend on the nature of the cause.

Prognosis.—Depends on—1. Extent of surface involved. 2. Location of the compressing body. 3. Location with reference to *depth.* 4. Nature of compressing body. 5. Suddenness with which compression is applied.

Diagnosis.

Manner of ascertaining the seat of the injury.

Manner of ascertaining the nature of the compressing body.

Dissection.

Results.

Treatment.—Varies with cause.—

a. When the bone is depressed.

b. When effused blood is the cause.

c. When pus constitutes the compressing agent.

TREPHINING.

History of the operation.

Diseases of the head for which it is employed.

Dangers of the operation.

Parts to be avoided in applying the instrument.

The operation itself described.

Dressing.

After treatment.

Manner in which the opening is closed.

PARACENTISIS.

INFLAMMATION OF BRAIN.—(See Effusion.")

II. INJURIES AND DISEASES OF THE SPINE.

Classification.

a. Injuries and diseases of the spinal column.

b. Injuries and diseases of the spinal marrow and its nerves. 1. Concentric diseases of the true spinal marrow. 2. Eccentric diseases or those attacking the incident or excitor nerves. 3. Diseases of the reflex, or motor nerves. 4. Spinal irritation.

a. INJURIES AND DISEASES OF THE SPINAL COLUMN ITSELF.

I. FRACTURES.

Liability.

Causes.—External violence directly or indirectly applied.

Usual seat of fracture.—Spines, bony bridges, and body.

Division.—1. Those occurring above the fourth cervical. 2. Those occurring below this point.

Symptoms.—Depend upon the location of the fracture and its extent.

Prognosis.—Depends on location and extent of fracture.

Diagnosis.—May be confounded with *luxation, concussion of spine, compression from effused blood, inflammation of marrow or its membranes.*

Dissection.

Treatment.

II. LUXATION.

Liability.

Causes.—External violence.

Vertebræ most liable.—The cervical, especially the second.

Division.—1. Partial. 2. Complete.

Symptoms.—Depend on seat of injury and its extent.

Prognosis.—Depends on the seat and extent of injury.

Diagnosis.

Dissection.

Treatment.

III. SPONTANEOUS LUXATION OF THE FIRST CERVICAL.

Definition.

Causes.

Symptoms.—In 1st, 2d, and 3d stages.

Progress.

Prognosis.

Diagnosis.

Dissection.

Treatment.

IV. CURVATURE.

Definition.

Varieties.—1. Lateral, or scoliosis. 2. Posterior, or gibbus or cyphosis. 3. Anterior, or lardosis.

Causes.—Predisposing and immediate.

Prophylaxis.

Symptoms.—Depend on the variety of the defect.

Prognosis.—Depends on the age of the individual, the duration, cause, degree, and complication of the case.

Diagnosis.—May be confounded with *caries, partial paralysis, natural inequality in size* of the two halves of the body, &c.

Pathology.

Effects on the spinal column, its contents, and the health of the individual.

Question of marriage.

Treatment.

Fractures - Of the spine - Liability great from its exposed situation - causes - External violence may produce it by the amount of force being very great - again one falling from a high place on the feet may have a fracture in consequence of transmitted force

V. SHORTENED SPINE.

Definition.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

VI. CARIES OF SPINE.

Liability.—Children most liable; may occur in adults.

Causes.—1. Constitutional. 2. Local.

Symptoms.—Vary in the 1st, 2d, and 3d stages; and also depend on the age of the individual.

Prognosis.
Diagnosis.
Effects upon the viscera of the thorax and abdomen, and general health of the patient.
Dissection.
Treatment.

VII. ABSCESS.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Dissection.
Treatment.

VIII. EXOSTOSIS.

Effects of these tumours on the functions of the spine, and those of the adjacent viscera.

IX. ANCHYLOSIS.

Effects of this condition of the joints upon the functions of the column.

X. SPINA BIFIDA.

Definition.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

b. INJURIES AND DISEASES OF THE SPINAL MARROW, ITS MEMBRANES AND NERVES.

I. CONCENTRIC DISEASES.

I. WOUNDS.

Varieties.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

II. CONCUSSION.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

III. COMPRESSION.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

IV. CONGESTION.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

V. INFLAMMATION, OR MYELITIS.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Dissection.
Results, or products.—Convulsions, epilepsy, paralysis agitans, either general or partial, tremor mercurialis.
Treatment.

VI. INFLAMMATION OF THE MEMBRANES, OR SPINAL MENINGITIS.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Dissection.
Treatment.

II. ECCENTRIC DISEASES, OR THOSE OF THE EXCITOR NERVES.

These are certain forms of epilepsy, puerperal convulsions, tetanus, hydrophobia, hysteria, chorea, stammering, asthma, vomiting, tenesmus, strangury, and abortion. Most of these affections are treated of under other heads.

III. DISEASES OF THE REFLEX OR MOTOR NERVES.

Spasmodic strabismus, spasmodic tic, spasmodic torticollis, spasm of the respiratory nerves—already referred to.

IV. SPINAL IRRITATION.

Definition.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Dissection.
Treatment.

III. INJURIES AND DISEASES OF THE EYE.

I. INJURIES, &c. OF THE EYELIDS.

WOUNDS.

Varieties.
Symptoms.
Prognosis.
Results.
Treatment.

INFLAMMATION OF THE LIDS

Texture usually involved.
Causes.
Varieties.
Symptoms.
Prognosis.
Results.
Treatment.

ŒDEMA.

Causes.
Symptoms.
Prognosis.
Treatment.

OPHTHALMIA TARSI.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PSOROPHTHALMIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HORDEOLUM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

TYLOSIS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

MADAROSIS.

Definition.
Causes.
Symptoms.
Diagnosis.
Treatment.

TRICHIASIS.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

DISTICHIASIS.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

PTOSIS.

Definition.
Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ECTROPIUM.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

ENTROPIUM.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

ANCYLOBLEPHARON AND SYMBLEPHARON.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

EPICANTHUS.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

TUMOURS.

Varieties.—Nævi materni, encysted, half-encysted, tarsal tumours, chalazion, or grando, milium, and verucæ.
Causes of each.
Symptoms of each.
Diagnosis.
Prognosis.
Treatment.

MALIGNANT DISEASES.

The lids, like all other portions of the body, are sometimes involved in malignant diseases, by which they are partially or entirely destroyed. These cases are generally troublesome, and often require an extensive operation for their relief. (See Blepharoplastic operations.)

II. INJURIES AND DISEASES OF THE CONJUNCTIVA.

FOREIGN BODIES LODGED IN THE EYE.

Various kinds.
Symptoms.
Mode of examining the lids.
Diagnosis.
Prognosis.
Treatment.

WOUNDS OF THE CONJUNCTIVA.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SIMPLE INFLAMMATION OF CONJUNCTIVA.

Causes.—1. Constitutional. 2. Local.

Symptoms.

Prognosis.

Diagnosis.

Effects of products.

Treatment.—1. General. 2. Local.

CATARRHAL OPHTHALMIA.

Definition.

Synonymes.—Conjunctivitis catarrhalis, conjunctivitis puromucosa catarrhalis, ophthalmia purulenta metior, cold blight, &c.

Causes.—Cold in some shape, often accompanying influenza, and is occasionally epidemic.

Symptoms.

Diagnosis.

Prognosis.

Seat of the affection.—Seldom involves any other tissue than the conjunctiva.

Terminations.

Treatment.

PURULENT OPHTHALMIA.

Definition.

Varieties.—That of newly-born children, and that attacking adults. Acute and chronic.

Symptoms.

Diagnosis.

Prognosis.

Terminations or products.—1. Sloughing of cornea. 2. Ulceration. 3. Opacity of cornea. 4. Bursting of cornea. 5. Adhesion of iris. 6. Detachment of conjunctiva. 7. Staphyloma. 8. Ectropium, or Entropium.

Treatment.

GONORRHŒAL OPHTHALMIA.

Definition.

Varieties.—Acute, chronic, and that involving both the conjunctiva and sclerotic coat.

Causes.—Is it contagious?

Symptoms.—In each variety.

Diagnosis.

Prognosis.

Effects.

Treatment.

ERYSIPELATOUS OPHTHALMIA.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

PUSTULAR OPHTHALMIA.

Definition.
Causes.
Age most liable.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SCROFULOUS OR STRUMOUS OPHTHALMIA.

Definition.
Causes.—1. Predisposing. 2. Exciting.
Symptoms.
Diagnosis.
Prognosis.
Results.
Treatment.

VARIOLOUS OPHTHALMIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

MORBILLIOUS AND SCARLATINOUS OPHTHALMIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ULCERS OF THE CONJUNCTIVA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

GRANULATED CONJUNCTIVA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HYPERTROPHY OF CONJUNCTIVA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Effect on lids.
Treatment.

PTERYGIUM.

Definition.
Varieties.—1. Tenue. 2. Crassum. 3. Malignant. 4. Single. 5. Pannus.
Location.—Usually the inner canthus.
Age most liable.—Adult.
Causes.—Often obscure.
Symptoms and growth.
Diagnosis.
Prognosis.
Pathology.
Treatment.

XEROMA, OR DRY CONJUNCTIVA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

POLYPI, WARTS, AND OTHER EXCRESCENCES OF THE CONJUNCTIVA.

Characteristics of these tumours.
Causes.
Diagnosis.
Prognosis.
Treatment.

III. INJURIES AND DISEASES OF THE CORNEA.

WOUNDS.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Effects.
Treatment.

FOREIGN BODIES IN THE CORNEA.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Effects.
Treatment.

INFLAMMATION OF THE CORNEA.

Varieties.—1. Acute. 2. Chronic. 3. Partial. 4. Complete. 5. Scrofulous.

Causes.—1. Constitutional. 2. Local.

Symptoms.

Diagnosis.

Prognosis.

Effects.

Treatment.

SUPPURATION OF THE CORNEA.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Effects.

Treatment.

ULCERS OF THE CORNEA.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Effects.

Complications.—Hernia corneæ, fistula corneæ, &c.

Treatment.

OPACITY OF THE CORNEA.

Varieties.—1. Arcus senilis. 2. Nebula. 3. Albugo, or leucoma. 4. Macula. 5. Congenital.

Causes.

Symptoms.—In each variety.

Diagnosis.

Prognosis.

Effect on vision.

Treatment.—1. General remedies. 2. Local remedies 3. Cunier's operation. 4. Bigger's operations.

STAPHYLOMA.

Definition.

Extent.—1. Partial. 2. Complete.

Shape.—Varies. Hence we have the staphyloma hemisphericum, globosum, conicum, racemosum, &c.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Structure.

Treatment.

CONICAL CORNEA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IV. INJURIES AND DISEASES OF THE SCLEROTICA.

WOUNDS.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Effects.
Treatment.

SCLEROTITIS, OR INFLAMMATION OF THE SCLEROTICA.

Varieties.
Causes.
Diagnosis.
Prognosis.
Results.
Treatment.

STAPHYLOMA SCLEROTICÆ.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CYSTS AND TUMOURS OF THE SCLEROTICA.

Varieties.
Causes.
Symptoms
Diagnosis.
Prognosis.
Treatment.

V. INJURIES AND DISEASES OF THE AQUEOUS MEMBRANE AND CHAMBERS.

FOREIGN BODIES LODGED IN THE ANTERIOR CHAMBER.

Nature of these bodies.
Manner of introduction.
Symptoms produced by their presence.
Prognosis.
Treatment.

HÆMOPHTHALMUS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Effect.
Treatment.

AQUO-CAPSULITIS.

Definition.
Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Results.
Treatment.

HYPOPYON.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Results.
Treatment.

DROPSY OF THE ANTERIOR CHAMBER.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Results.
Treatment.

VI. INJURIES AND DISEASES OF THE IRIS.

IRIDEREMIA.

Definition.
Causes.
Appearance of the eye.
Effect on vision.
Prognosis.
Treatment.

COLOBOMA IRIDIS.

Definition.
Causes.
Appearance of the eye.
Effect on vision.
Prognosis.
Treatment.

CHANGE OF COLOR IN THE IRIS.

Causes.
Appearance of the eye.
Effect on vision.
Prognosis.
Treatment.

PROCIDENTIA, OR STAPHYLOMA IRIDIS.

Definition.
Causes.
Symptoms.
Effect on vision.
Prognosis.
Treatment.

SYNECHIA.

Definition.
Varieties.—Anterior and posterior.
Causes.
Symptoms.
Prognosis.
Treatment.

FUNGOUS EXCRESCENCES AND TUMOURS OF THE IRIS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

MYOSIS.

Definition.
Causes.
Symptoms.
Effect on vision.
Prognosis.
Treatment.

MYDRIASIS.

Definition.
Causes.
Symptoms.
Effect on vision.
Prognosis.
Treatment.

TREMULOUS IRIS.

Definition.
Causes.
Symptoms.
Effect on vision.
Prognosis.
Treatment.

IRITIS.

Definition.

Varieties.—1. Acute. 2. Chronic. 3. Idiopathic. 4. Sympathetic, which includes the syphilitic, arthritic, &c.

Causes.—1st, or constitutional, as syphilis, gout, rheumatism, scrofula, cold, wet, &c.

2d, or local.—Direct injuries, over exertion of the eye, &c.

Age most liable.—Adult and old age. Rarely occurs before puberty.

Symptoms.—1. Constitutional. 2. Local. These are of course modified by the extent, duration, and intensity of the inflammation.

Effects of this inflammation.—1 Effusion of coagulable lymph. 2. Change in the color of the iris. 3. Displacement of the iris. 4. Hypopion. 5. Effusion of blood in the chambers. 6. Adhesions between the iris and cornea, or capsule of the lens. 7. Loss of motion in the iris. 8. Closure of the pupil. 9. Atrophy of the globe. 10. Opacity and thinning of the cornea. 11. Partial or entire loss of vision.

Diagnosis.

Prognosis.—Depends on circumstances; for the most part it is unfavorable.

Treatment.—Three indications—1. Arrest the inflammation. 2. Prevent the further effusion of lymph, and promote the absorption of that already secreted. 3. Prevent the contraction and obliteration of the pupil. Remedies to be employed for the accomplishment of these indications.

OPERATIONS FOR ARTIFICIAL PUPIL.

Object of these operations.
States of the eye requiring the operation.
Proper condition of the eye for an operation.
Prognosis.
Position of the artificial pupil.
Should we operate when one eye is sound!
Should we operate on BOTH *when both eyes are diseased.*
Preparation of the patient for an operation.
Various operations described.—Three principal methods at present in vogue. 1. Incision. 2. Excision. 3. Separation.
Relative merits of each.
Formation of an artificial pupil in the sclerotica.

VII. DISEASES OF THE CHOROID COAT.

CHOROIDITIS.

Definition.
Varieties.—Acute and chronic.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

DEFICIENCY OF PIGMENT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VIII. DISEASES OF THE RETINA.

RETINITIS.

Definition.
Varieties.—Acute and chronic.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

AMAUROSIS.

Definition.

Synonymes.—Gutta serena, suffusion.

Varieties.—1. Idiopathic. 2. Sympathetic. 3. Symptomatic. 4. Incipient, or recent. 5. Inveterate, or confirmed. 6. Partial. 7. Complete. 8. Organic. 9. Functional. 10. Continued. 11. Intermittent. 12. Periodical. 13. Local, or nervous. 14. Complicated.

Causes.—Several classes—

1. Those operating immediately on the nervous apparatus of the eye.

2. Those operating indirectly through the medium of some other organ, or by sympathy.

3. Those operating through the medium of the sensorium.

4. Congenital causes.

Symptoms.—Depend on the stage at which we examine the case.

Diagnosis.—May be confounded with cataract, glaucoma, muscæ, &c. Refer to the catoptric examination.

Prognosis.—Depends on the *cause*, *duration*, and *degree* of the attack. Influence on the sound eye when but one is affected.

Pathology.

Treatment.—Modified to suit the peculiarities of the case.

WEAKNESS OF SIGHT.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

MUSCÆ VOLITANTES.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

HEMERALOPIA

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

NYCTALOPIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

HEMIOPIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

NEAR-SIGHT

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

FAR-SIGHT.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

PHOTOPSIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

CHRUPSIA, OR COLORED VISION.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

IX. DISEASES OF THE LENS AND CAPSULE.

CATARACT.

Definition.—Partial or complete opacity of the crystalline lens, of its capsule, of both conjointly, or of the liquor Morgagni.

Varieties.—Lenticular, capsular, capsulo-lenticular, and Morgagnian; true and false; radiated and aborescent; hard, soft, and fluid, and cataracts of various colours; congenital and acquired.

Age most liable.

Causes.

Symptoms.—Impaired vision, opacity in or behind the pupil, &c. &c.

Diagnosis.—May be confounded with amaurosis, glaucoma, weakened sight, deposites of lymph, &c. Use the catoptric test to ascertain the true character of the case.

Prognosis.—Depends on the complication of the case, its duration, &c.

Progress of the defect.

Question of operating when but one eye is affected.

Treatment.—Nothing short of an operation will cure the complaint. Several operations have been devised, viz.: 1. Extraction. 2. Depression, or couching. 3. Reclination. 4. Solution or absorption. (Anterior and posterior operation.)

Appreciation of these different operations.

Description of each, and the instruments required for its performance.

Preparation of the patient.

Season most favorable for operating.

After treatment.

Condition of the eye when the operation succeeds.

Cataract glasses.

GLAUCOMA.

Although this affection, strictly speaking, cannot be considered an affection of the lens in every case, yet as glaucoma is often confounded with cataract, and the lens is often involved, it may be as well to speak of it under this head.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Pathology.
Treatment.

X. DISEASES OF THE GLOBE OF THE EYE.

INFLAMMATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HYDROPHTHALMIA.

Definition.
Varieties.—1. Dropsy of the anterior and posterior chambers. 2. Dropsy of the vitreous humour. 3. General dropsy of the eye-ball.
Causes.
Symptoms in each form.
Diagnosis.
Prognosis.
Treatment.

ATROPHY OF THE BALL.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

COLLAPSE FROM SUPPURATION.

Character of the defect.
Mode of relieving the deformity.

EXOPHTHALMIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XI. AFFECTIONS OF THE LACHRYMAL ORGANS.

INFLAMMATION OF THE LACHRYMAL GLANDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ENLARGEMENT AND INDURATION OF THE LACHRYMAL GLAND.

Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

EPIPHORA, OR EXCESSIVE SECRETION OF THE TEARS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

STILLICIDIUM LACHRYMARUM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XII. DISEASES OF THE CARUNCULA LACHRYMALIS.

ECANTHIS.

Definition.
Varieties.—Innocent and malignant.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

TUMOURS OF VARIOUS KINDS.

XIII. DISEASES OF THE LACHRYMAL SAC AND DUCT.

INFLAMMATION.

Causes.
Varieties.—Acute and chronic.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FISTULA LACHRYMALIS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PERMANENT OBSTRUCTION OF THE NASAL DUCT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CONGENITAL DEFICIENCY OF THE NASAL DUCT.

Operation for its relief—(see Berard.)

XIV. MALIGNANT DISEASES OF THE EYE.

FUNGOUS EXCRESCENCES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CARCINOMA OF THE EYE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FUNGOUS HEMATODES OF THE EYE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

MELANOSIS OF THE EYE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XV. EXTIRPATION OF THE EYE.

Mode of performing the operation.

XVI. INTRODUCTION OF AN ARTIFICIAL EYE.

Preparation of the eye.
Mode of placing it.

XVII. ANALOGOUS DEGENERATIONS OF THE EYE.

OSSIFICATIONS AND CALCULOUS CONCRETIONS.

XVIII. ENTOZOOA IN THE EYES.

Kinds usually met with.
Symptoms produced by their presence.
Effect upon the eyes.
Treatment.

XIX. DISEASES OF THE ORBIT.

WOUNDS.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FRACTURES OF THE BONES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FOREIGN BODIES LODGED IN THE ORBIT.

Symptoms.
Prognosis.
Treatment.

INFLAMMATION OF THE CELLULAR TEXTURE OF THE ORBIT.

Causes.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Results.
Treatment.

TUMOURS IN THE ORBIT.

Various kinds.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IV. DISEASES OF THE EAR.

Anatomy of the Ear.—Divided into external, middle, and internal ear The external ear consists of the auricle, and the meatus auditorius externus. The middle ear consists of the tympanum and its appendages, namely, the membrana tympani; the four ossicula auditus with their ligaments and muscles; the eustachian tube; and the mastoid cells.

The internal ear, or labyrinth, as it is termed, from its complexity of organization, is divided into bony and membranous labyrinth—the bony is subdivided into vestibule, three semicircular canals, and the cochlea—the membranous labyrinth is found within the semicircular canals and the vestibule and contains the thin serous fluid called liquor cotunnii.

MALFORMATIONS OF THE EAR.

MALFORMATIONS OF THE AURICLE.

Cases most frequently met with.—1. Deficiency of helix, and sometimes its division from the lobus. 2. An entire absence of the lobus—its division by a slit into an anterior and posterior portion—or its attachment wholly or partially to the integuments of the side of the head. 3. The tragus and anti-tragus are sometimes united, or inverted so as to partially close the opening of the meatus. 4. The total absence of the auricle. 5. An enormous enlargement of the auricle.

Causes.—1. Congenital. 2. Acquired, from wounds, bites, ulceration, sloughing—an increase in size is often the result of manipulation, or of the dress stretching the part.

Effect upon sense of hearing.

Treatment.—By artificial ear, by removal of overlapping portion, by dilatation.

MALFORMATIONS OF MEATUS AUDITORIUS EXTERNUS.

Most frequent varieties.—1. A very narrow canal. 2. An unusual shortness of canal. 3. A total absence of canal. 4. A closure of the canal at birth by a slimy caseous matter. 5. A closure of the orifice by the integument stretching across it and being attached to its margin; or by a membrane in any part of the canal; by a contraction in the cartilage, or by undue ossification of the bony part of the tube.

Causes.—Mostly congenital—sometimes acquired.

Effect upon hearing.

Examination of meatus externus.

Prognosis.—Modified by cause.

Treatment.—Varies with the case.

MALFORMATIONS OF THE MIDDLE EAR.

Importance.—Most of them are attended with deafness, and the cause is generally not to be removed.

Most frequent variations.—1. The cavity has been found much smaller than usual. 2. The cavity has been inordinately large. 3. The outer wall has been ossified—in fact a bony plate has occupied the place of the membrana tympani. 4. The ossiculæ auditus are often varied in their conformation, thus one or more of them may be too small or too large or deficient in ossification, or ossified together, or altogether wanting. Supernumerary bones have also been found. 5. The tympanum has been found filled with a soft white matter resembling inspissated albumen; also with a scrofulous deposite. 6. The eustachian tube may be wholly or partially obliterated.

Causes.—1. Constitutional. 2. Acquired.

Diagnosis.—An examination will teach the condition of the membrana tympani. Catheterizing and injection of air will teach the condition of the eustachian tube.

Prognosis.—Only favorable in partial obliteration of the eustachian tube.

Treatment.—Varies with the kind and cause.

MALFORMATIONS OF THE INTERNAL EAR.

Various malformations of the labyrinth have been noticed—it has been entirely wanting—it has been deficient in ossification—change in quantity and consistence of the liquor cotunnii has also been observed.

Such deficiencies are of course beyond the reach of art.

WOUNDS OF AURICLE.

Usual varieties.—Incised, lacerated, contused.

Treatment.—Differs in no respect from that for similar injuries in other parts; bearing in mind the deformity resulting from the loss of even a small portion, union is always to be attempted.

PARTICULAR DISEASES.

OTITIS.

Definition.—Generic term, implying general disease of the whole organ.

Division of—Acute, chronic, external, internal.

External includes inflammation of the auricle, and of the meatus auditorius externus.

Internal includes inflammation of the tympanum and labyrinth.

Causes.—1. Exciting. 2. Predisposing.

Symptoms and consequences.—As acute inflammation seldom attacks the entire organ at the same time, or from the same cause, these vary according to the structure of the part inflamed, and will be described under the heads of diseases of particular parts.

In order press formed are molded on to pl
out of metal to metal either perforate
membranous fibrous or form a
arm in which varieties of bones,
and along side the myelpenna

ACUTE EXTERNAL OTITIS.

Seat.—Sometimes commences simultaneously in the auricle and meatus—more frequently it extends from the auricle to the canal—it however is sometimes limited to the meatus.

Most frequent forms.—Erysipelas, erythema, in short, all the inflammatory actions, either common or peculiar, which affect the cutaneous system.

Causes.

Symptoms.—Vary with the form.

Consequences.

Diagnosis.

Prognosis.—Favorable.

Treatment.—1. Local. 2. General.

ACUTE INTERNAL OTITIS.

INFLAMMATION OF TYMPANUM AND LABYRINTH.

Forms.—Primary. Consecutive.

Seat.—Mucous lining membrane at first, then extending to cellular tissue, to periosteum and to the bone itself.

Causes.—Exciting. Predisposing.

Symptoms.—Agree with those of external otitis, differing only in consequence of their much greater severity, and of the circumstances of the matter formed not finding a ready outlet.

Consequences.

Diagnosis.—May be confounded with external otitis, with meningitis or phrenitis.

Prognosis.—Grave—as troublesome otorrhœa may result—the ossicula may be lost—the membrana tympani or the mastoid cells may be perforated—permanent closure of the eustachian tube may result—or phrenitis, meningitis, and death may follow.

Treatment.

CHRONIC OTITIS.

DIVISION—INTO EXTERNAL AND INTERNAL.

External is divided into that of the auricle and that of the auditory meatus.

Chronic Inflammation of the auditory meatus includes—

1st. Erythema of meatus with diminished secretion.

2d. Inflammation of dermal membrane with inordinate secretion.

3d. Polypus, fungus, and vegetations of auditory canal.

4th. Sinus of meatus.

5th. Inordinate ceruminous secretion.

6th. Aphthæ or herpetic ulcerations of lining membrane of meatus.

CHRONIC INFLAMMATION OF THE AURICLE.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.—Local and constitutional, as the local affection is often maintained by general derangement of the health.

CHRONIC INFLAMMATION OF MEATUS AUDITORIUS EXTERNUS.

ERYTHEMATIC CHRONIC DISEASES OF THE MEATUS.

Synonyme—l'Otite chronique seche. (Roche.)
Causes.—General derangements of health.
Symptoms.—Uneasiness, slight pain, itching, dry sensation, difficulty of hearing, tinnitus aurium.
Diagnosis.—Tube unusually dry—wax in small quantity—most frequently a vitiated secretion of a white or yellowish scaly matter.
Prognosis—Favorable.
Treatment.—Attention to general health—tonics—counter irritants—astringents.

II. CHRONIC INFLAMMATION OF DERMAL MEMBRANE WITH INORDINATE SECRETION.

Synonymes.—Humid chronic external otitis, (Roche,) mucous or catarrhal otorrhœa. (Itard and Andral.)
Frequency of occurrence.—Very frequent.
Age most liable.—Childhood—sometimes occurs in old age.
Causes.—Acute inflammation—irritation of dentition—metastasis of gout, gonorrhœa, and mucous ophthalmia—presence of a foreign body.
Symptoms.—Usually mild—uneasiness—audition slightly diminished—profuse discharge either serous, mucous, or puriform, or mixed.
Diagnosis.
Prognosis.
Treatment.—Removal of the cause—improvement of general health—cautious use of astringents.

III. POLYPUS, FUNGUS, AND VEGETATIONS OF AUDITORY CANAL.

Difference between them.—Polypus is oval or round, attached by a single root, usually regular in its shape and firm in consistence. Fungus is a mass of exuberant granulations, soft and vascular, irregular in its shape and attachments, and always attended with free discharge. Vegetations consist of numerous small diseased growths, sometimes soft and fungoid, at others, firm and conical, and attended with slight discharge.

Fractures From page 44

b. direct force only - d - great deformity - f - easy - h - always set - have rest of Massiter muscle, binding of fracture also binding of vacuation muscle to set it introduce thumb in cheek and pressing up and inward, if big arch pulled down the temporal temporal fossa little deformity - will give great pains by pressure on muscle, endeavor by taking hold of piece and pull it up - by making an opening below seat of injury. Superior Maxillary generally have it receiving up lower portion, always force directly applied - dentist &c. Treat - Pd with that of Zygoma - when there is a large portion of bone torn away - irregularity of dental arch and cuspidates - or fragment wedged in mouth - where alveolar process is broken - set is easy pushed back and kept with compress - lower jaw as a splint - when no teeth use cork coated with white wax Fr May - at Symp - or between symp and angle - on both sides separating chin wholly or crowned

each having peculiar symp
st in one side of sym — pr
displace — or both sides
great displace owing to the
degeneration and other causes
of having it in drawing a
tooth. Spasm Symp — when
the inf. dent fer m a, agony
intense, more or less displacem
and in resp — cup ition immobile
heat. Model fragment and
apply apparatus. take
a fol of pasteboard ⊏⊐ and
fold so as to make Chin Cup —
when upper jaw fract also
this wont do — but use a
long cup carrying over the
upper jaw — Large cup put
it, & fit to Chin take H tail band
put over chin and tie on top of
head and taking over the
occiput — and tie it to the
clipping. Lay Bandage — a
compress to pass from chin
to trachea a roller over occip
spinal to frontal go down
turn round under chin go back
to occiput then over the chin
horizontally

Coronoid Process, fracture direct or spasm - swelling - little or no displace. Diagnosis - pain - obscure crepitus - on moving lower jaw - Rup the temp muscle first if cant make out diagnosis put in case and treat as fracture Condyle - when broken draw forward and makes an unusual lump and depression and trismus - no crep - impair motion and pain - Simple dressing wont answer - Treat - Take compresses fold push down pag - and inter pose cylinder - and then use roller! Os Hyoides, Big grasp or blows, as soon as done always have displacement when drawn out treat simply when drawn in - danger 2nd great difficulty of breathing coming on immed - pal and purple with pale into Cardy suffocation - pure oedema - prog exceedingly guarded what does this take hold of tongue thrust down as far as possible pull up epiglottis and endeavor to push pag out - dont leave

bag - pass in tenaculum - and pull out. If bag out no difficulty -

Thyroid Cartilage

Diag - easy - but great danger of suffocation - bag out displaced portion -

Sternum - Often broken by force directly applied or by muscular contract - May be longitudinal transverse & thin transverse may have fragment driven in and bone one dragged out - diagnosis easy - 2nd in fracture is to keep bones together in same plane and look out for inflam - if compl fracture pick out pieces and treat - to place the pag - hinder patient across a cylinder in order to stretch abdominal muscles - direct patient to be in same position for some days - to keep pag in situ two compress as fulcra. If can't get up this way cut the integ - slip under a smooth piece of steel &c and lift -

Ribs - By direct force of crushing or on obstacle. The pag are driven in by force broadly applied if compl and wire

When the bones will be drawn on
ten times as much danger when pieces
are drawn in - Symptoms - Comp
pain crepitation nearly always
more or less swelling - long breath mas
pain - Sometimes Diagnosis difficult
as when man fleshy - or far back Sup
Surgery then when these Symptoms
are found always treat as fracture
when serial ribs broken generally
have shortening of side - Treat in
simple - surround - chest broad wide
how dist be - when displace out
place compress over seat of injury
when drawn in use compresses be
fitted - If compound always Comp
it with Emphysema known by elastic
absence of any acute pain - puncture
skin squeeze out all gas then Set
fracture and apply wiler - Bevery careful
to get out - ~~Emphysema~~ - where lung
wounded have hemorrhage - if possible
stop it by all hemostatic agent if
small beneficial - Air will get
through the lung into Chest and
almost suffocating - Some times
not so - then let it be - if dangerous
let out with trocar - Another
Complication - ~~Pleurisy~~ - then
when bandage is compressing
away - MAKE sheath of paste-board
and bind over this -

Clavicle. Force direct pressing down in when Counter Stroke drawn out diagnosis sometimes difficult — Symps - the weight of arm Displs the out fragment - the Cent of pect muscles and limb drawn against chest — And also lengthened — goes also downwards inwards and forwards - to centre against and in sitting neck carry up in. The arm is generally found across chest and bones overlapping Prog - as to cure easy but without deformity sometimes difficult — Mind to Dress my and tighten every day; Treatment — Ind 3 — Dressing Top - 3. Major Hand Kerchief 1 / 3 - rolls - pad dont make hard - Always - carry both arms out to attach pad - begin axilla sound side pass by circulation around body - to prevent slip carry over shoulder, work arm to discharge pus - flex arm and body, then lay compress on broken and, axilla of sound side - carry roller over shoulder and down arm Repeating arm in. 3 rolls. Axilla

Causes.—Chronic inflammation—local irritation from foreign bodies—injury to lining membrane by the ear-picker.

Symptoms.

Diagnosis.

Prognosis.—Favorable in polypus—not so favorable in fungus and vegetations.

Treatment.—By excision and caustics—by ligature—by extraction with forceps—by caustics alone.

IV. SINUS OF MEATUS.

Definition.

Causes.—An abscess external to the meatus—a diseased mastoid bone.

Symptoms.

Diagnosis.

Prognosis.—Unfavorable.

Treatment.—Modified by cause—palliative chiefly.

V. INORDINATE CERUMINOUS SECRETION.

Causes.—Acute or chronic inflammation of the meatus.

Symptoms.

Diagnosis.—May be confounded with almost any of the other diseases of the ear; a careful examination must decide.

Prognosis.—Favorable.

Treatment.—Allay any existing inflammation; remove any inspissated cerumen: apply some gentle stimulant. Dangers arising from incautious syringing.

VI. APTHÆ OR HERPETIC ULCERATIONS OF LINING MEMBRANE OF MEATUS.

Causes.—Chiefly constitutional.

Symptoms.

Diagnosis.

Prognosis.

Treatment.—Tonics, and alteratives for the general health; local alterative astringent injections.

FOREIGN BODIES IN THE MEATUS AUDITORIUS EXTERNUS.

Nature of these.—Round and smooth substances, as beans, peas, glass beads; sometimes insects of various kinds.

Origin of Insects.

Symptoms.—Those of chronic inflammation, occasioning an otorrhœa, where the cause continues to operate for any length of time.

Treatment.—Removal of the cause will sometimes alone be sufficient; solid substances may be removed by the forceps or by forcible syringing with warm water; insects may be removed by a few drops of oil, or of infusion of tobacco, &c. &c.

Dangers arising from force applied for the extraction of foreign bodies.

INTERNAL CHRONIC OTITIS.

CHRONIC INFLAMMATION OF MEMBRANA TYMPANI.

Causes.

Effects.—Ulceration; perforation; complete destruction.

Mode of inspection and examination.—By speculum; by forcible expiration; by sounding and by the otoscope.

Symptoms.

Diagnosis.—May be confounded with disease of meatus, or of tympanic cavity.

Prognosis.—Unfavorable to audition.

Treatment.

CHRONIC INFLAMMATION OF TYMPANUM.

Forms.—Primary. Consecutive.

Seat of disease.—Mucous membrane; frequently extending to the cellular tissue, and onwards to periosteum and bone.

Causes.

Effects.—Perforation of membrana tympani; loss of ossicula; abscess of mastoid cells; caries of petrous bone; effusion of pus under dura mater or between the cerebral membranes.

Symptoms.

Diagnosis.—May be confounded with other inflammatory diseases of internal ear, with meningitis or phrenitis.

Prognosis.—Unfavorable.

Treatment.—Modified antiphlogistic; injections of mild fluids through the eustachian tube.

RELAXATION OF MEMBRANA TYMPANI.

Definition.

Varieties.—1. From want of tone in the membrane. 2. Paralysis of the internal muscles of the malleus. 3. Rupture of the same muscle.

Causes of each.

Symptoms.

Diagnosis.

Prognosis.—Of first two, favorable; of the last, unfavorable.

Treatment.—Dry warm tonic applications; tonic and astringent injections.

CARTILAGINOUS AND OSSEOUS CONDITION OF MEMBRANA TYMPANI.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.—By perforation.

History of operation.—First proposed by Cheselden; proposed and performed by Sir Astley Cooper in cases of obliteration of eustachian tube.

sound side over shoulder
we acting as a sling Rupin
should ap. not much use
1st most uncomfortable a very
troublesome — not safe because
loose — 3 — in warm weather very
uncomfort — in female compress
mammary gland — Handker
folded — diag — pass around
and tie under ay — 3 — roller
have another hand — tie around
neck — for appar — fracture
X Scapula — are commonly
met with portions more liable than
other the bras & posterior accom is most
liable it overhangs shoulder — and
the should is prone to ass depr
the displacement being drawn
down by deltoid muscle dig
flattening shoulder — the prog
ment and Rotation at once — facility
of disappearance of deformity by elevat
of arm — will not be as strong
as generally difficult to Rep
pos in appos we will have
against union least to long pos
together and to Rep shoulder
ap — dont put a pad in ay dra
apparatus of adhes plaster and
posterior on elbow

2. apply pad between Elbow and side to relax deltoid then Sling
Scapula - at Superior Angle give in comminuted, and in displacement great trouble - diagnosis - by passing finger over a prominence and depression preternatural, mobility and Rub bone but not and paralyze the action of Serratus Anticus muscle - Treat 1st wk - compress ~~[illegible]~~ in front of fract and strap Sup arm in Sling - for 8 weeks -
Coracoid Process - Spasmodic action violence is displace - dragged inwards and downwards rarely have but ligament - union - Must wing more - before can set fracture - Symptoms - Arm drawn into chest - if put arm back Cant move the tumor any more, no crepitus - Treat - To overcome action of P. M. S. L. - D and C. B - Make hand reach shoulder - of sound side. very be weaker in all prob -
Spine - From direct force - Drag by moving frag - in Sup by direct - no displace - Rule is to put at rest D & Sup - S. Must put arm in Sling and surround chest bandages -
NECK very rare some say not happen passing through B-notch - only from force direct - The arm becomes longer - a dip under Acromion - Shoulder flattened 3 Symp - diagnosis take hold of humerus rotate when shorten arm and have crepitus. Look precisely like

luxation - Prog - Fav - Ind to Rep Elbow up - dont put a pad in axilla
Treat put arm and fore arm in Sling and surrounding whole arm with transverse bandage - XI Humerus 1. Head - By Dir or ind fracture - Simple fracture pain blow be - When patient flesby sometimes deff crepitus pain sign of d - In - 2 from or displace or very little manifested by excessive pain and swelling obscure the humerus and pain increases if diag - Observe treat as fracture - Joint wise we prob have alteration of shape of head of bone - or intrastitial abscess - save by fibrous prog may recover without a bad ankylosis - Impacted fracture may occur by fall on humerus here have no deformity except shoulder is fuller by crowding of fibres of deltoid muscle. Diag Short of humerus or crep - with formed or adjustes - deep seated pain. Treat Rest to allow arm to heal no shortened position as effort to lengthen produces too much irritation and Crep - Gun shot wounds in which head of bone broken up - Old surgical recover in every case Crep - not so - pick away sporella Rep arm steady cling wounded suppuration - have plank a deposit have false joint - passive motion - leg union at end 8 weeks on - If ans sort crep sep of head from Epiph - Young subject diag - very difficult - from force direct ind - Should a round no adjustation Diag - one crep - no displace. in front if shoulder a prominence, Elbow drawn back bony Elbow forward

and prominence disappear. Treat great
difficulty to procure union as cartilage unit
unite - then an angular splint to stop ds
of head of bone inward  padded
pass band over shoulder and under elbow
Cure well generally from 6 to 10 weeks
Anatomical Neck - Cant distinguish from
other fracture of bone - Treat Same -
Surgical - Neck. Surgic fract = of neck
above insertion of latissimus dorsi. and P. M. -
upper frag is turned out - tumor axilla -
clipping, shoulder flattened, shortened arm -
Tr - Ind - to Bring upper frag down and
Rep out - lower vice versa - Dag - often
confound with one above ins D - M - and
not in Surgical neck - Trouble to control
with rotator muscles and abductor -
Dessault app - most frequently applied
and 3 short Splints - and common pad
in axilla - reverse pad when lower
frag - out - Cant use pad - since the
pad is a movable point slipping
backwards forwards - accord to
Dessault - pad und - Ax cross
strap on shoulder - the pad coming
down only 2/3 way then will constantly
move -  use L and splint
with upper end pad - Ty - to get
from support in axillar and no
motion. When fract in shaft - place
Surgeon with A. and 3 short sp - 2
 one for inside and 1 for out - and
long yards sp in back - begin at
flex down across

in reaching above leave out - so up above
seat of fract - 1st pull out - 2 put on
short splint - pad each end of splint
to prevent excoriation - pin attach
short splint to arm - don't let condyle
press upon pad put cushion - 2nd roller
to attach rectangular splint - now put
thing fine strips for bone to unite prop
after 4th week starch band in use splint
unless compound fract - don't use wire
Middle Third - Drag - By bending ends
on each other - arm drag act be resting if
occurring in rotations fracture - use same
treating - Roller band & short splint &
splint - quad prop - when arm flex
without moving 4 week have partial
or complete anchylosis - after 2nd week
passive motion upon every week -
Lower third above condyles Dis of
sometimes mistake for luxation, if
so will have deformity - Tumor from
tumor behind short of fore arm - and
fixation - put knee and take hold
of arm and fore arm bend over knee
forearm make extension and
count and if fract will set in
if lux - ~~op~~ so crepitation -
rotating arm - have crep in joint
but above splint won't do - pass
roller two wet on splint - place
splint inside and above, if there
much disposition to action of
triceps use back splint - delightly
passive motion early

Fracture Cond Force direct the solution may group and out is snapping off of one of condyle of both rare accident. Diag great pain take hold of bone and if cond broken cant move it. If swelling has taken place, cant tell. Then apply Colles application Rep Brown mitten - put on simple rect ang splint - treat as fract - if lung clin set it - be careful in forcing if both cond and humerus fractured take hold forearm and squeeze in rec and have crep and pain, flex and rotate arm and frag will move, and to left. Rec out of fissure and then compress on condyle to prevent gun stock rect ang splint, great dis to Ankylosis, change angle of splint - gradually so as to get arm straight in 4 wks and then back by hyperextension of 8th week to get to a right ang -

Carpal Bones & Simple fracture very rare compound often happens - gun have stiffness of hand in simple oral sometimes be retained comp rarely - heal - active antiphlogs etc, simple splint 2nd week passive motion lateral and flexion and extension, curved splint much better to retain in situ the portions

Dangers of operation —Wound of vascular lining of membrane giving rise to effusion of blood; injury to the chorda tympani, and to the malleus.

Mode of operation.—A simple puncture by trocar, Astley Cooper's operation; by caustic, Richerand's; by drilling with a quadrangular perforator, Buchanan's, Himle's, &c.

OBSTRUCTION OF EUSTACHIAN TUBE.

Forms.—1. Partial. 2. Complete.

Causes.—Inflammation, acute and chronic; extension from the throat of such diseases, as scarlatina, variola, syphilis, cynanche tousillaris, enlarged tonsils, descent of nasal polypi.

Symptoms.

Diagnosis.—May be confounded with deafness from other causes.

Prognosis.—Favorable.

Treatment.—By reducing existing inflammation—by constitutional treatment, if the cause requires it—by dilatation, if stricture exists in the course of the tube.

MODE OF CATHETERIZING EUSTACHIAN TUBE.

Instruments used.

History of the operation.—First performed on himself by Guyot, a Post Master at Versailles, in the year 1700, revived by Itard, and materially improved.

Indications for its use.—1. An important means of diagnosis. 2. To remove mucous or blood from tympanic cavity or from eustachian tube. 3. To dilate a stricture. 4. To stimulate the nervous system of the ear.

Dangers of the operation.—1. Inflammation of throat, and catarrh of the tympanum. 2. Emphysema. 3. Rupture of membrana tympani. 4. Strangulation.

Mode of passing instrument.

Air press.

NERVOUS DISEASES OF THE EAR.

Arranged under two heads. 1. Disordered function of the acoustic nerve. 2. Disordered functions of the nerves of common sensibility and motion, or the tympanic nerves.

1. Disordered function of the acoustic nerve.

Division.—1. The excited or acute state. 2. The torpid or chronic state.

ACUTE STATE.

Causes.—From local affection—sometimes sympathetic with general health, or some disorder of brain, stomach, bowels, or uterus—from over use of organ.

Symptoms.—Tinnitus aurium, deafness, an annoying pulsation synchronous with the heart.

Diagnosis.

Prognosis.

Treatment.—The removal of the cause, administration of tonics, alteratives, counter irritants.

I. TORPID FUNCTIONAL DERANGEMENT.

Age most liable.—Old age.

Causes.—Over excitement of organ; severe constitutional disorder, &c.

Symptoms.

Diagnosis.—May be assisted by the absence of disease in the external and middle ear, by a want of perception of sounds when the cranial bones are thrown into vibration by a watch.

Prognosis.—Unfavorable.

Treatment.—Attention must first be paid to general health; various nervous excitants, as electricity and galvanism, may be tried. Application of ætherous vapour is recommended by Itard and Krahmer.

Mode of introducing vapour.

II. FUNCTIONAL DERANGEMENT OF TYMPANIC NERVES.

Synonym.—Otalgia or ear ache.

Causes.—The common causes of neuralgia; enlarged tonsils; any local disease in the vicinity; direct injury in sounding the membrana tympani; or eustachian tube.

Symptoms.

Diagnosis.

Prognosis.—Favorable.

Treatment.

FORMS OF DEAFNESS.

DEAFNESS.

Synonymes.—Surditas, cophosis.

Degrees.—1. That marked by impossibility of hearing at all, usually congenital and a cause of dumbness. 2. By power of distinguishing certain sounds, as the pronunciation of the vowels, whistling, &c.

Causes.—Mostly congenital, sometimes acquired. The congenital cases most frequently depend on morbid changes in the soft parts, in a small proportion of cases upon an anomaly in the structure of the solid parts.

Diagnosis.

Prognosis.—Unfavorable in congenital cases; more favorable in acquired cases.

Treatment.

HARDNESS OF HEARING.

Synonyme.—Dyscœcia.

Definition.—Where the faculty of hearing is so diminished that articulate sounds cannot be heard without the assistance of some particular apparatus.

Degrees.—1. Where the individual cannot hear a distant noise, and especially *high tones*, but can perceive articulated sounds when the voice is a good deal raised. 2. He hears and distinguishes both high and low tones, and also words, but only when the voice is somewhat raised.

Causes.—Either some alteration in that part of the organ which serves

low small hole in bottom to let water drain out, in compound remain perfect quiet for two weeks or ~~from~~ 8 to 10 weeks remain under treat

Metacarpal. Direct or by muscle contracture, transverse or oblique - generally have compound fracture - may have the palmar arches may be wounded have in this case, Transverse, Diagnosis very simple, Treat to have comp and Roller Bend for external disp - for Int deformity - set the parts here and putting compresses in palm to prevent disp and then binding the hand down on splint - When palmar arches are wounded, tie up art if cant control - by pressure with compress on radial and ulnar art treat always as simple fracture, never open artery - to convert - in Compound in Comp - Close wound and treat

Fingers - Treat - Take narrow roller and turn and reverse turns - have irregular Pemp - better use sticking plast two rolls by spiral turns one beginning at end of finger and other at base then a narrow splint, and 3 rolls of adhesive plaster -

Thumb. Always put splint on back of thumb -

Sacrum from direct force —
may have displace — If pact involve the cavity. find him having flexed thigh and leg — paralysis sometimes complete intense pain on slight movement, with movement of muscles on erectus — pres. and pain — and retention — some temp paralysis of bladder — Prognos — long — This paralysis may remain or may remain for 8 weeks ten just as long as the sacral nerves are compressed by bone may have abscess —
Treat. no use to replace, put parts at rest surround the pelvis broad roller to knees and feet together and put lower cut on double incline plane keep on back for 10 days then on back - and so on for 8 to 10 weeks has no pain — makes no water and rectum — Always use catheter — 2 daily from 1st dressing, after 3 or 4 days evacuate the rectum by syringe and common water — If water remain draw out with syringe — Break up mass with finger or spoon —
OSCOCCYGIS — Force direct or indirect in parturition — Diagnosis more or less displ generally inwards may be out or lateral pain intense — as very motion moves frag — pass finger up rect — and set — use same dressing as in preceding part — and to knees and ankles — to keep frag in situ don't pile up rectum with charpie
Keep finger up ass for 56 hours

Ilium by direct force - generally may be communicated with across pelvis - easy - displace and crep tingling - take hold of crista detect at once - Ischi same as the foregoing sensations - Fract - small blunt body breaks a small square piece of bone and abdominal muscles pull out of place on to crista of Ilium - to extend with displace and resist of muscles - Diag - is easy - push pat down after flexing body apply bandage strap under perineum - when fracture occurs same treat -

Fracture Ant Sup Spinous process, Muscular Contract - patellae - leg useless, Diag Depress where should have prominence and tumor in groin, Treat - Broad roller - flex thigh at an acute angle for three weeks - and not to strong as before

as a conductor for the vibration of sound; or also an increased sensibility of the acoustic nerve.

Alterations of the conductive parts are of two kinds; 1. A total obliteration of the meatus auditorius externus; its imperforation, or complete absence. 2. A diseased condition of the tympanum, as inflammation of its lining membrane; caries of its parieties; and collections of blood, pus, or other fluid in its cavity.

Diagnosis.—Of some alteration of conducting parts, may be assisted by the patient only hearing when solid bodies are placed between his teeth, while his dull perception of sound does not appear to be less when the ear is covered. Of some disease of tympanum, by the history, or by marks of previous inflammation.

Prognosis.—Unfavorable.

Treatment.

ALTERATION OR DIMINUTION OF HEARING.

Synonym.—Paracusis.

Definition.—Where the faculty of hearing articulated sounds in the natural way is imperfect for want of precision.

Causes.—1. Alterations of the membrana tympani from congenital malformation, or from thickening, ossification, perforation, or laceration. 2. The lodgment of fluid in the tympanic cavity, as in some cases of obstruction of the eustachian tube, as in some new born infants. 3. Alterations in the membrane of the fenestra rotunda, such as its imperfect form, its erroneous situation, its thickened state, &c. 4. Depression, or excitement of nervous influence, the natural consequence of the patient's sensibility.

Diagnosis.

Prognosis.

Treatment.

V. INJURIES AND DISEASES OF THE NOSE.

WOUNDS.

Varieties.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

FRACTURES OF THE OSSA NASI.

See "Fractures."

EPISTAXIS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ACUTE INFLAMMATION OF THE SCHNEIDERIAN MEMBRANE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CHRONIC INFLAMMATION WITH THICKENING OF THE SCHNEIDERIAN MEMBRANE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ŒDEMA OF THE SCHNEIDERIAN MEMBRANE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

OZŒNA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ULCERATION OF THE NASAL CARTILAGES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CARIES AND NECROSIS OF THE NASAL BONES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ENLARGEMENT OF THE INFERIOR TURBINATED BONE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

DEVIATION OF THE SEPTUM NARIUM.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

LODGEMENT OF FOREIGN BODIES IN THE NOSTRILS.

Nature of these bodies.
Mode of introduction.
Symptoms produced by their presence.
Diagnosis.
Prognosis.
Treatment.

FIBROUS TUMORS AND CYSTS OF THE NOSTRILS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

POLYPUS OF THE NOSE.

Definition.
Location.
Form.
Number.
Size.
Consistence.

Color.

Termination.

Division.—1. Nonmalignant. 2. Malignant.

1. Or nonmalignant.

a. The vesicular.

b. The gelatinous.

c. The fleshy.

d. The fibrous.

e. The hard.

2. Or malignant.

a. The cancerous.

b. The medullary or hæmatoid.

c. The schirrous.

Causes.—Of simple polypus.

General Symptoms.

Special Symptoms.—Each form is characterized by peculiar symptoms. State what these are.

Causes of malignant polypus.

Special symptoms in each variety.

Diagnosis of polypus tumour.—Has been confounded with a great variety of diseases, viz. enlarged turbinated bone; inclination of the septum; disease of the nasal bones; œdema of the mucous membrane; chronic inflammation; abscesses; ozœna; fibrous tumours of the nostrils; polypus of the antrum; hernia cerebri; foreign bodies in the nostril.

Prognosis.—Depends on the form of polypus.

Treatment.—Varies in the different species of polypus.

EXTERNAL POLYPUS.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

LIPOMA.

Ulceration of nose Infiltration

Definition.

Causes.

Diagnosis.

Prognosis.

Treatment.

LOSS OF NOSTRIL OR THE ENTIRE NOSE.

See "Rhinoplastic operations."

1 Rec. Dolorosa - Neuralgia of parts of hand & arm
2. Injury to nerve from cut or blow, or from general ill health or from Pericranitis
Cut nerve - other cases palliative
or. Cut the pericranium & relieve the offender

In zero cystic tumors should be given
definitely speech from the dead

VI. INJURIES AND DISEASES OF THE CHEEKS.

WOUNDS.

Varieties.
Parts liable to be involved.
Symptoms.
Prognosis.
Treatment.

TIC DOLEREUX

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

SPASMODIC ACTION OF THE MUSCLES

Causes. From change of life in surrounding parts or irritation of nerves
Symptoms.
Prognosis.
Treatment. palliatives Strychnia &c
acupuncture

PARALYSIS OF THE CHEEK.

Varieties.
Causes. Injury to nerve pontine disease & Encephalitis
Symptoms. Injury or Constitutional
Prognosis.
Treatment.—1. Constitutional. 2. Local.

1. Only required when the defect depends on a constitutional cause, and must be modified by the nature of this cause.

2. Or local.

a. Blisters.
b. Application of strychnia or veratria.
c. Electricity.
d. Acupuncture.
e. Excision of a portion of the cheek.
f. Section of the antagonising muscles. (Dieffenbach.)

TUMOURS OF THE CHEEK.

Varieties.
Mode of operating in each.

ULCERS OF THE CHEEK.

Division.—External and internal.
Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

MACULÆ.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

LOSS OF CHEEK.

See "Chieloplastic operations."

VII. INJURIES AND DISEASES OF THE JAWS.

FRACTURES.

See "Fractures."

LUXATIONS.

See "Luxations."

WOUNDS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

INFLAMMATION OF THE LINING MEMBRANE OF THE ANTRUM.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS OF THE ANTRUM.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ULCERATION OF LINING MEMBRANE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

Macula – Compression by Collodion or pure Spots often cures if small cut out of large Tattooing with Carbonate of Lead.

In Compd – or crushed bones of upper jaw dont pick away the fragments. let lower jaw serve as a splint

Insp^n. of L. M of Antrum Known by pain &c & discharge of pus anteriorly

In abscess open outside of upper jaw below the Infra Orbitary foramen with Trocar, & large open several days to drain out pus.

In Ulceration remove cause no need of pulling out a tooth unless it is a bad one

In Sero Cystic tumor perforate & insert a seat ~~until~~ & keep them till all fluid is evacuated

In fibrous tumor of Antrum cut out tumor

Cut out Epithelial Cancer — variety of Lupus —

In fungous tumor of Antrum if in early stages Medullary Cancer. remove upper jaw.

SERO-CYSTIC TUMOR OF ANTRUM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FIBROUS TUMOUR OF ANTRUM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FUNGUS TUMOUR OF ANTRUM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

POLYPUS OF ANTRUM.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

BONY TUMOUR OF ANTRUM.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FOREIGN BODIES LODGED IN THE CAVITY OF THE ANTRUM.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

OSTEO-SARCOMA OF UPPER JAW.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

OSTEO-SARCOMA OF LOWER JAW.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SPINA-VENTOSA OF LOWER JAW.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

EXOSTOSIS OF LOWER JAW.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ANCHYLOSIS OF LOWER JAW.

Varieties.—True and false.
Causes of each.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

REMOVAL OF UPPER JAW.

Mode of operating.

REMOVAL OF LOWER JAW.

Mode of operating.

REMOVAL OF SYMPHISIS OF LOWER JAW.

Mode of operating.

RESECTION OF DIFFERENT PORTIONS OF THESE BONES.

Mode of operating.

EPULIS.

Definition.
Varieties.
Causes.
Symptoms in each variety.
Diagnosis.
Prognosis.
Treatment.

Removal of upper jaw. Cut from Ext. angle under orbit around cheek & down thro the parotid duct or paralysis Excises then down the Nose. & Cut with ~~scissors~~ nipper the Ext Angle. The Zygomatic & up the nose & pull out a tooth & cut them with a chisel the fragments will fall out.

Croupal Laryngitis - Oedematous - effusion into submucous cellular tissue - In young child not knowing how to cough may close the narrow orifice of the Glottis and suffocate Hence simple Erythematous inflamm may terminate in resolution or in effusion or in thickening of submucous tissue -
Inspiration very difficult because the ponches of Glottis pushed down and close the orifice in such a manner as to impede the breathing expiration pushes them away and hence it is free - tickle with a feather in order to get it out
This disease generally terminates favorably tho generally the patient suffers some inconvenience from the sensitive condition of the parts -
Treatment Oedematous cases may be stopped - Leeches emetics peculiar influence on mucus tissue hence preference to tartar emetic pustulation Tart Ants - Warm pediluvia Lay and head warm bath emet Cupri Sulphas applied to tonsils excellent - Ipecac Vigors Tart Ant if Calomel by some & Tonnetten. Ad for laxative and sedative effects - Dr Adams large dose Calomel Emetic Cathartic Remove the secretion effected and abort fever by stopping fever on flying first tea
Chronic Laryngitis - Assuming syphilitic or ulcerative resort to the means -

has been called by many different authors
may have tubercles in lungs, may lose
the voice change of location with of the patient
remove the disease — Cures shown by pain
dryness loss of voice pain increased by
pressure — Time of day and fatigue of mind
will attitude the feelings of the patient —
duration and terminations vary — Great amount
vary for the tubercular and cancerous
affections never recover — always examine to
the cause of it if syph, lues or tubercular
and treat accordingly — Change of climate
counter irritation — Information of ~~[illegible]~~
Abscesses membrane & small dose of Calomel
very good — Inhalation of Chlorine —

PARULIS.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

VIII. DISEASES OF THE SALIVARY APPARATUS.

I. DISEASES OF THE PAROTID GLAND AND ITS DUCT.

WOUNDS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

INFLAMMATION OF THE GLAND.

Varieties.—Acute and chronic.
Causes.
Symptoms.
Prognosis.
Treatment.

ABSCESS OF THE GLAND.

Causes.
Symptoms
Prognosis.
Treatment.

TUMOUR OF THE GLAND.

Varieties.
a. Fatty.
b. Melanotic.
c. Encysted.
d. Fibrous.
e. Simple hypertrophy.
f. Erectile.
g. Aneurismal.
h. Swelling from salivary concretion.
i. Schirrous.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.—In each variety.

TUMOURS OCCUPYING THE PAROTID SPACE.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

WOUNDS OF PAROTID DUCT.

Varieties.
Symptoms.
Prognosis.
Treatment.

FISTULA OF PAROTID DUCT.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.—Four methods. 1. Cicatrization of the Fistulous orifice. 2. Dilatation of the inner portion of the duct. 3. The establishment of a new opening in the mouth, or forming a new portion of the canal, where the original has been destroyed. 4. Destruction of the parotid gland.

Agents employed under the 1st head—
a. Suture.
b. Cauterization.
c. Compression.
d. Plastic operation.

Agents employed under the 2d head—
a Seton.
b. Probing.

Agents employed under the 3d head—
a. Operation of Deroy.
b. " " Duphenix.
c. " " Monro.
d. " " Tessard and Flajani.
e. " " Atti.
f. " " Deguise.
g. " " Bonnafons.
h. " " J. Rhea Barton.
i. " " Horner.

Agents employed under the 4th head—
a. Pressure on the duct.
b. Ligature of duct.
c. Pressure on the gland itself.

FISTULÆ OF PAROTID GLAND.

Varieties.—Two.
Causes.
Symptoms.
Prognosis.
Treatment.—*a.* Cauterization.
b. Suture.
c. Excision.
d. Blisters.
e. Gold leaf plaster of Malgaigne.

II. DISEASES OF THE SUB-MAXILLARY GLAND.

WOUNDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FISTULA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ENLARGEMENT OF THE GLAND.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

III. DISEASES OF THE SUBLINGUAL GLAND.

WOUNDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FISTULA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

RANULA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ENLARGEMENTS OF THE GLAND.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SALIVARY CALCULUS.

Location.
Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IX. DISEASES AND INJURIES OF THE MOUTH.

I. AFFECTIONS OF THE LIPS.

WOUNDS OF THE LIPS.

Varieties.
Causes.
Symptoms.
Treatment.

SIMPLE TUMORS OF THE LIPS.

Varieties.—Encysted, fatty, transparent cyst, enlarged follicles, verruca, moles, &c. &c.
Causes.—Vary in each form.
Symptoms.—Depend on the variety.
Prognosis.—Depends on the kind of tumour.
Treatment.—Varies with the form of tumour.

CANCER OF THE LIP.

Points usually attacked.—Margin, and especially that of the lower lip.
Varieties.—Superficial and deep-seated.
Causes.
Symptoms.—Vary with the stage and form of cancer.
Diagnosis.
Prognosis.—More favorable than in any other form of cancer.
Treatment.

CANCRUM ORIS.

Definition.
Persons most liable to be attacked.
Causes.—Constitutional and local.
Symptoms.—Vary with stage.
Prognosis.—Unfavorable.
Treatment.—Depends on the stage of the disease, the part attacked, and the situation of the patient.

EVERSION OR DOUBLE LIP.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

HYPERTROPHY OF THE LIPS.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

ADHESIONS OF THE LIPS.

Causes.
Symptoms.
Prognosis.
Treatment.

HARE-LIP.

Definition.
Varieties.
Lip most frequently affected.
Complications.
Causes.
Symptoms.
Prognosis.
Treatment.—Depends on the age of the patient and the nature of the defect.
a. The usual operation.
b. Barton's curvilinear operation.
c. Malgaigne's operation.
d. Operation without needles.

ATRESIA ORIS.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

MOUTH TOO LARGE.

See Report by Velpeau of a case where the mouth was open nearly to each ear.

LOSS OF LIP.

See "Chieloplastic operations."

II. AFFECTIONS OF THE TONGUE.

WOUNDS OF THE TONGUE.

Varieties.
Causes.
Symptoms.
Prognosis.
Results.
Treatment.

GLOSSITIS.

Definition.
Varieties.—Acute and chronic.
Causes.
Symptoms.
Prognosis.
Results.
Treatment.

HYPERTROPHY OF TONGUE.

Varieties.—Congenital or acquired.
Causes.
Symptoms.
Prognosis.
Effects on the bones of the mouth.
Treatment.
a. Remedies calculated to promote absorption.
b. Pressure.
c. Ligature.
d. Scarifications.
e. Excision.

TUMOURS OF THE TONGUE.

Varieties.—Simple and malignant.
Causes.
Symptoms.
Prognosis.
Diagnosis.
Treatment.

FISSURE OF THE TONGUE.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

GLAZED TONGUE.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

ULCERS OF THE TONGUE.

Varieties.—Simple and malignant.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CANCER OF THE TONGUE.

Parts most frequently attacked.
Various forms presented in its origin.
Causes.
Symptoms.
Prognosis.
Treatment.

ADHESION OF THE TONGUE.

Causes.
Symptoms.
Prognosis.
Treatment.

TONGUE TYE.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

STAMMERING.

Definition.
Causes.—1. Congenital. 2. Acquired. 3. Functional. 4. Organic.
Symptoms.—Vary in different cases.
Prognosis.—As regards relief.
Treatment.
a. Vocal gymnastics; (so called.)
b. Different surgical operations.
c. Acupuncture as proposed by Detmold.
Examination of the results of these measures.

DEFORMED TONGUE.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

PARALYSIS OF THE TONGUE.

Causes.
Symptoms.
Prognosis.
Treatment.

III. DISEASES OF THE TONSILS AND ROOF OF THE MOUTH.

WOUNDS OF THE VELUM.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

TUMORS OF THE VELUM.

See "Warren and others."

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

INFLAMMATION.

Varieties.—Acute and chronic.
Causes
Symptoms.
Prognosis.
Treatment.

ABSCESS.

Causes.
Symptoms.
Prognosis.
Treatment.

ULCERS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

CLEFT VELUM.

Varieties.—Vary in extent.
Causes.—Congenital.
Symptoms.
Effect on the voice.
Prognosis.—As regards a cure by operation.
Treatment.—Operation of staphyloraphia.

FISSURE AND OPENINGS OF THE HARD PALATE.

Varieties.
Causes.
Symptoms.
Effect on the voice.
Prognosis.
Treatment.—Operations of staphyloraphia and staphyloplasty.

AFFECTIONS OF THE UVULA.

a. Cleft uvula.
b. Hypertrophy of uvula.
c. Enlarged uvula.
d. Œdema of the uvula.
e. Relaxation of the mucous membrane of the uvula.

Causes in each of these defects.
Symptoms in each.
Prognosis in each.
Treatment in each.

LODGEMENT OF FOREIGN BODIES IN THE FAUCES.

Different kinds.—Fish bones, bits of bread, pins and needles, a thimble, (see Parish,) &c.
Symptoms developed by the lodgement of such matters.
Treatment.

ENLARGEMENT OF THE TONSILS.

Location of the gland.
Structure of the gland.
Different kinds of enlargement.
a. From acute inflammation.
b. From chronic inflammation.
c. From contagious inflammation, as is seen in anginosa putrida.
d. From closure of the orifices of the follicles.
e. From inspissation of its secretion.
f. From calcareous deposites.

Persons most liable.—Children of a scrofulous diathesis.
Causes.—Vary with the kind of enlargement.
Symptoms.
Effects on the thorax—(see Warren.)
Prognosis.
Treatment.—Depends on the kind of enlargement.

X. INJURIES AND DISEASES OF THE NECK.

I. SUPERFICIAL AFFECTIONS.

WOUNDS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

ABSCESS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

ULCERS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

TUMOURS OF THE NECK.

Varieties.—Simple and malignant.
Causes.
Symptoms.
Prognosis.
Treatment.

HYDROCELE OF THE NECK.

See "Maunoir."

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

BRONCHOCELE.

Definition.—Tumour of thyroid gland; from Βρονχος the windpipe.
Synonymes.—Gotre or goitre, tracheocele, Derbyshire neck, thyrophrasia, &c.
Varieties.—Simple, complicated, and malignant—(see N. R Smith.)
Age most liable.
Countries in which it is usually found.
Causes.
Symptoms.
Diagnosis.—May be confounded with other tumours.
Prognosis.
Complications.—Often with disease of the heart.
Treatment.

a. Iodine.
b. Mercury.
c. Frictions with various liniments.
d. Operations of various kinds.

1. Electricity. 2. Caustics. 3. Seton. 4. Tapping when it contains a cyst. 5. Ligation of the thyroid arteries 6. Extirpation.

Examination of these different operations.

HERNIA BRONCHALIS.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

DEFORMITY FROM BURNS.

See "Chapter on Cicatrices."

TORTICOLLIS OR WRY NECK.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

II. AFFECTIONS OF THE LARYNX AND TRACHEA.

WOUNDS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

INFLAMMATION.

Varieties.—1. Acute and chronic.
Causes.
Symptoms.
Prognosis.
Treatment.

ABSCESS.

Causes.
Symptoms.
Prognosis.
Treatment.

ULCERS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ŒDEMA.

Causes.
Symptoms.
Prognosis.
Treatment.

SCALDS.

Causes.
Symptoms.
Prognosis.
Treatment.

CARIES OF THE CARTILAGES.

Causes.
Symptoms.
Prognosis.
Treatment.

FOREIGN BODIES IN THE LARYNX OR TRACHEA.

Nature of these bodies.
How introduced.
Symptoms developed by their presence.
Prognosis.
Effects when the case is not promptly relieved.
Treatment.—Various operations.
- *a.* Tracheotomy.
- *b.* Laryngotomy.
- *c.* Laryngo Tracheotomy.
- *d.* Operation of Malgaigne.

ARTIFICIAL RESPIRATION.

Manner of employing this measure.

III. AFFECTIONS OF THE PHARYNX AND ŒSOPHAGUS.

WOUNDS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

INFLAMMATION.

Varieties.
Causes.
Location.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

EXOSTOSIS OF CERVICAL VERTEBRÆ.

Symptoms.
Diagnosis.
Prognosis.
Treatment.

TUMOURS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ULCERS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

LODGEMENT OF FOREIGN BODIES.

Nature of these bodies.
How introduced.
Symptoms developed by their presence.
Prognosis.
Treatment.—Various means, and as a last resort pharyngotomy or œsophagotomy.

DILATATION OR POUCH OF THE ŒSOPHAGUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

STRICTURES OF THE ŒSOPHAGUS.

Varieties.—1. Spasmodic. 2. Permanent. 3. Simple. 4. Malignant or cancerous.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SPASM OR NEURALGIA OF ŒSOPHAGUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PARALYSIS OF ŒSOPHAGUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

XI. INJURIES AND DISEASES OF THE THORAX.

WOUNDS.

Varieties.—Superficial and penetrating.
Causes.
Symptoms.—In each form.
Prognosis.—Depends on nature of the wound, &c.
Effects produced by a simple wound of the chest.
Treatment.—In each variety.

WOUNDS OF THE LUNGS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HERNIA PULMONALIS.

Definition.
Causes.
Symptoms.
Prognosis.
Treatment.

WOUNDS OF THE HEART.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

WOUNDS OF THE INTERCOSTAL ARTERY.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

EMPHYSEMA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

EMPYEMA—HYDROTHORAX—HYDROPS PERICARDII.

See "Chapter on effusions."

CARIES OF THE RIBS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

TUMOURS OF THE RIBS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

FRACTURES OF THE RIBS.

See "Fractures."

PARACENTESIS THORACIS.

See "Effusions."

DISEASES OF THE MAMMARY GLAND.

See "Amputation and diseases of females."

Superficial wounds - Don't use
the stitch if can help it - if possible put on warm fomentations, if strong
put cold water dressing - If a
man gets a severe R.R. and
bruise, Peritonal Inflam. Muscular atrophy, the effect finds
between peritoneum and skin may
cut to large vessel, find a hard
cylind. a little full clotted blood
if take [illegible] Suppuration cut
it out, if can't reach it don't cut
Suppuration will generally get it out
If hemorrage goes on tie down and
tie vessel but cut it if possible -
Tendon shaft - the wrist
and arm fractures wounds, and etc
not, suppose a shot [illegible]
may or not perforate [illegible]
not if deep-seated [illegible]
wounded, have to turn, [illegible] shot
left hand, on his [illegible] if possible
[illegible] from a [illegible] to stop it
if you can take the vessel
[illegible] arrest hem - pass your stitch
through skin, begin early and pick
treat, don't force If have a
hemorrage, [illegible]
[illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible]

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XII. INJURIES AND DISEASES OF THE ABDOMEN.

WOUNDS.

Varieties.—Superficial and Penetrating.

Causes. Knife

Symptoms in the first or superficial.

Prognosis in superficial wounds.—Generally favorable, but may give rise to *peritoneal inflammation, abscess,* which may dissect up the integuments to a considerable extent in consequence of the resistance of the fascia, and finally to *hernia* from the weakness of the cicatrix.

Symptoms in penetrating wounds when no important viscera are injured.

Prognosis in such cases.

Mode of examining such wounds.

Treatment in each form of wounds.

Treatment of penetrating wounds complicated with protrusions of the viscera.

WOUNDS OF THE STOMACH.

Causes.
Symptoms. In Kick Concussion in the
Diagnosis. Solar plexus stimulate
Prognosis. gently
Treatment.

WOUNDS OF THE INTESTINES.

Causes.
Symptoms. return intestine always before omentum
Diagnosis.
Prognosis.
Treatment. In trauma Lebert's specular

WOUNDS OF THE LIVER.

Causes.
Symptoms. Bleed. Morphia
Diagnosis.
Prognosis.
Treatment.

WOUNDS OF THE SPLEEN.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

WOUNDS OF LARGE VESSELS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

BLOWS ON THE ABDOMEN.

Symptoms to which they give rise.
Prognosis.
Manner in which death is produced.
Treatment.

ABSCESS IN THE WALLS OF THE ABDOMEN.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

make early incision or perhaps open in peritoneum

TUMOURS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FISTULÆ—(BEAUMONT'S CASE, ETC.)

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

ARTIFICIAL ANUS.

Varieties.
Causes.
Symptoms.
Prognosis.
Treatment.

POISONS IN THE STOMACH.

Introduction of the stomach pump.

PARACENTISIS ABDOMENIS.

See "Effusions."

EXTRAVASATIONS IN THE CAVITY OF THE ABDOMEN.

Fluids extravasated.
a. Blood.
b. Chyle and lymph.
c. Bile.
d. Urine.
e. Fœces.
Symptoms produced by these extravasations.
Prognosis.
Treatment.

and give him opium immediately
till he is completely narcotized, give
a guarded prognosis if vessel wounded
Where there is a protrusion, be
pre-pared, generally post-mortem
if the omentum is mortified - so very
grave prognosis - if omentum covered
with warm water, if out two or
3 hours gets hard - make it
soft, and then put it in, if can
do so, if protrude to lips of wound
cut back, carefully - but close the
wound with sticking plaster.
If omentum bleeding, cut off by
the vessel, if mortified cut off
and keep in, stand from a place
in office, access with warm bed
and the operation performed a stump
If have intestine wound
if hard and dry must put
the part which bleeds - best close
wound, leave 12 hours, put in back
first, leave puncture, take large
gauze dressing dried saturated
with cup, if intestine prolapsed or dry
press finger and then if clogs will
come again put back if intestine
no blood must be - if tissue
arms of mortified in spite pressure
up the stump and tie if necessary

physic make this do — if large cys
and if there be one be an aspirated
mass

Blows on abdomen. often cause obs. as
if find matter collecting make a free open
let out matter and apply warm fom-
and support -

Tumors divided Internal
and external, have fatty tdrous —
If stationary if non malignant
if do not press on abdomen from size
or to press on contents, let it alone
Pray — Always guarded -
Internal — most common is ovarian
tumor. If patient good health let her
alone - no constitutional disturbance
let it lone - If a fluctuation - digestion
impaired - health - take, if life is in
jeopardy - take away - left of Dr R
Jangle removed short peritonitis and
adhesions — Two ways - great incision
after Jefferson - and abdomen the
water evacuated - and tube drawn
out and then slipped up — the
great incision is safest and
any - T. Fistula, or orifice - and
a small opening through
which forced pus - Generally cure
it - best to apply a pad and wear
it a week or so - and it is cured
If this fail do cauterizing - bottom and
and the actual cautery - all or take
a calipid pad from the edges and

make a cut and if no strain don't
cut. Artificial anus apt in large a
cul de sac - and two opening -
indication is here to open tube. if a
recent case put on a truss and
the fecal matter will collect and
get away the septum, If this fail
apply a ligature pass a simple
thread and cut it through other
way is to cut away with scissors
don't tie suture tight at first, and
in two or 3 weeks divide the septum
opening dependent - another is a silver
tube one end going in one cylinder
press on it with bandage - wont
do in recent cases wont do -

Operation gastrotomy to take
out foreign substances never eat in
the stomach life must be in danger
and can feel foreign body - and
sometime has elapsed, and treat
for wounded stomach, If you
can feel any hard lump in the
abdomen then open it - one full
dent lumpings - pull out the injury
portion of intestine

Effusions - of Blood
If hemorrhage active pass in the
finger and distinguish - the way where
blood comes from - let down and take
I can find the close wound and
look of peritonal inflamma - the
blood becomes soft and have a

a pointed abscess cut out your stick, and keep it open by a poultice. Effusion of Bile don't shut wound of Bile Feces, keep open so long as they are discharged — if Urine must keep open a large catheter, if can't do this but in perineum — keep it open till urine passes by urethra

perforating Stomach

Find nature of Hernia

The contents different vary in size usual size about that of the fist, may become very large sometimes large in warm climate —

Reducible Irreducible, [3] Strangulated

[3] where circulation of part is entirely or partly stopped — owing to swelling ~~[illegible]~~ not being in sac but in the protruding parts covering — Peritoneum is called sac

Exists almost always but generally is not present in inguinal hernia in very old Hernia it has become absorbed

Sac generally takes shape of the viscera it covers may however be different in consequence of adhesion

the original sac in old Hernia may be different

density divided into 3 parts neck of sac body and between the neck when opening through both rings may be divided by pouches by into 2 or 3

1 - Intestine - 2 Omentum - both Sex
1 - Climate, rare in cold climate 2 - Sex mod
by sex femoral most liable in female
2 - anything strain forcing - or anything which lessens cavity of the abdomen
Symptom - in Reducible depend on
location - general symptom belong
to all - 1st tumor can be put back by
taxis or change in position - If when
pass - & gurgling sound it is intestine
if does not pass this sound and doughy
feel and Dull omentum - tenderness in
tumor diarrhoea and constipation -
Irreducible tumor - cant put it back
in origin can pass it back - may
be confound with Hydrocele - Strong
a disposition to be costive no pain
no uneasyness except distension
followed by tenderness in tumor - a
little nausea increase of pain
in whole abdomen and distention
and vomiting gradually stercoraceous
and matter - Diagnosis easy don't
be satisfied if female without sy
per vagina - in cases, but to one
side Bicephalous may confounded
with cysts peritonitis producing
thickness patient often put
his hand on place in Thick
fluid -

Hernia

Sac is a piece of peritn carried down into an unnatural position - Shape is an important thing in diagnosis.-

Diff Cong - and acq - 1st no proper peritonal sac the other sac usless has been absorbed,

Anything that antagonizes the abdominal and diaphrag - Bmg Mag and Poop depends on varied application Trusses! Every pad must have a kind of truss and is adapting the act of the young set have a cost pad if an old hernia have a pad. best pad to Dr Wood operates in two ways - 1st the truss supports and allows the part to contract. 2d heal chronic inflam and adhesive inflam. If perform oper operation, put on a truss with calculated to intercept entirely the opening between the abdominal cavity and sac

In order to be effective the truss must be worn night and day -

I - ~~not~~ Turn facing the Rec land open a portion of integument rolled into the ring, & resembles Saunders cure introduction of some integument and having returned the protrud part by pushing to int ring - A POCKET is formed on the proper, and then press

HERNIA.

Definition.—Derived from the Greek ερνος a protrusion.

Location.—Groin, Umbilicus, Labia, Foramen ovale, Vagina, Perineum, Ischiatic notch and Diaphragm. Through the broad ligament, (Casteron and Saussier) Pilcher reports a case where the protrusion rested in a hollow of the bone of the pelvis. Mesenteric and Mesocolic hernia, and through the abdominal parietes.

Contents.—Vary in different cases.

Size.—Depends on the size of the viscus involved.

Sac.—Definition, mode of formation, and division. Cases in which the sac is wanting.

Division.—*a.* With reference to the contents of the hernia.—Enterocele, Epiplocele, entero-epiplocele, Gastrocele, Hepatocele, Cystocele, &c. &c.

b. With reference to the situation it occupies.—Inguinal or Bubonocele—Oscheocele or Scrotal—Merocele or Femoral—Exomphalos or Umbilical—Ventral—Ventro-inguinal—Phrenic, &c. &c.

c. With reference to the period of its appearance. Congenital and Acquired.

d. With reference to the condition of the contents. Reducible—Irreducible without Strangulation—Strangulated without Adhesion—Strangulated with Adhesion.

Causes.—1. Predisposing. 2. Exciting.

Symptoms.—Depend on the variety and location of the hernia; there are certain general symptoms characteristic of the *Reducible*, *Irreducible*, and *Strangulated.*

Diagnosis.

Prognosis.

Dissection.

Treatment.—Depends on the variety.

1. For reducible hernia.
   - *a.* The truss.
   - *b.* Injection of the sac.
   - *c.* Caustics.
   - *d.* Acupuncture.
   - *e.* Scarification. (Velpeau.)
   - *f* Introduction of gelatine strips. (Belmas.)
   - *g.* Ligature of Schmucher.
   - *h.* Ligature of sac.
   - *i.* Seton or royal stitch.
   - *j.* Plastic operation. (Jamieson.)
   - *k.* Pins. (Bonnet.)
   - *l.* Invagination of integument. (Gerdy.)
   - *m* Do. do. (Velpeau.)
   - *n.* Rest in the horizontal position. (Ravin.)
   - *o.* Hernotomy. (Detmold.)

2. For irreducible hernia.
   a. Suspensary truss.
   b. Rest.
   c. Low diet for a length of time.
   d. Hollow truss.

3. For strangulated hernia.
   a. The taxis.
   b. Blood letting. (Pott.)
   c. Warm bath.
   d. Tobacco injection. (Heister.)
   e. Purgatives. (Monro and Sharpe.)
   f. Purgative injections.
   g. Opium.
   h. Introduction of a stomach tube into the rectum. (O'Beirne.)
   i. Distension of lower portion of the intestine. (Arnott.)
   j. Pressure and cold to the tumour. (Arnott.)
   k. Ice to the tumour.
   l. Application of ether to the tumour. (Vela.)
   m. Application of Belladona to tumour and urethra by means of a bougie.
   n. Application of a large cupping glass over the tumour.
   o. Operations.

      1. The usual operation.
      2. Subcutaneous operation. (Guerin.)
      3. Division of stricture without opening the sac.
      4. Dilatation without cutting the stricture. (Arnott and Le Blanc.)

Question as to how long the operation may be deferred.
Treatment of the case after the stricture is divided.
Reduction en masse. (Luke.)

PARTICULAR FORMS OF HERNIA.

I. INGUINAL AND SCROTAL.

Definition.
Varieties.—1. Oblique. 2. Direct. 3. Concealed. 4. Congenital.
Most common variety.—The oblique.
Sex most liable.
Anatomy of the parts concerned in inguinal hernia.
Mode of formation.
Seat of Stricture.
Symptoms.
Diagnosis.—May be confounded with—1. Hydrocele of both the tunica vaginalis and cord. 2. Circocele. 3 Retained testis. 4. Diseased testis. 5. Hematocele. 6. Crural hernia. 7. Tumours of the scrotum.
Diagnosis between oblique and direct hernia.
Prognosis.
Dissection of the tumour.
Treatment.—Depends on the form.

Art both reduces in 16 minutes
warm bath 12 a.m. Pressure

a bandle armed with a double leg
and tie it to a piece of cork laid on
the groin and convert the tube
to a solid cylinder by caustic aqua
ammonia —

2nd Inguinal which cannot be
returned into abdomen by pressure old
treat was by a cure pad truss
If such — lumen if there is a thickly
you can do nothing — but if there
is adhesion: you can free it back
you have a hollow truss fit
the tumor and adapt it to truss make
in a week the bandage in truss
more shallow — when have a flat
and then a convex the intestine
If very large dont compress —
3 — a — taxis compressers to suit the
case — methodically, must be dont with
great if sensitive and inflamed —
don't touch it, if inflam take down
inflam — and then trap the taxis
dont keep up taxis to long — 25 or 35
minutes must operate. Sometimes
the whole lumen is carried in and
the strangu — of cables in this case
of bowel protrude be best make him
get up strain while use taxis and
operate. take care guide follow up
the cord,

Strain in S. Hernia causes more ills - its only gone enough to paralyze hernia

and tap is by position, and if fails in position remove dont relax too much when you stretch the ring is tense
Inhal - of Ether may often get them in the Ext of blood - use tobacco infusion employ greater care, If there is a cold give Opium - Dont leave patient until to do something

Operations - 1 - Cutting the sac and then cutting the structure - Best
2 - dont cut by Scalp Cut -
3 - cut to sac divide the tissues cutting sac - No man can tell what is condition - Unless they have made hernia. If in inguinal Hernia you find tissue attached tear off

Concealed - Inguinal Hernia diagnosis may be confound with strangulated Hematocele Hydrocele varicose or an large lymphatic gland ✓ if not inflamed it is not painful testis are always - lump immovable but cant be made to disappear - Hernia to cut through skin skin - fat - External Oblique - cremaster is not and infundibular fascia and sac - dissecting by cutting directly up - Direct or Central Hernia protrusion comes through the external ring alone. In cutting we have Skin Sup F, Internal Oblique Cremaster muscles bulged up to a little front Conjoined tendon of transversalis and Internal Oblique some of these things may not always be here
The cord blended will not assume here

In natural parts. Thus left fascia
anterior and first abdominal, splits into two
Colum[illegible] into columns of the g. Then the
Compound tendons of 3 & 2 oblique series to prevent the
must have a small block not larger than
end of first thumb. Cure only any way but
directly upwards. Congenital. Infr. had no distinct
funicular cords, usual cases on after birth
larger in one of Inguinal Fossa in front
of the testes, sometimes Peritoneum will come
down because opening is closed at birth -
Diagnosis must part simple - If reducible put
on a truss truss then with Big Belly-Belt. Operation
if indicated, appropriate truss - When the operation
must be performed must procure the structures
from the outside of sac - If not possible open hernia
at lowest point and cut thro

page 162 - In colic tossing abdomen
Bruising abdomen the pain always being in
such cases being relieved by pressure. Be hernia
the patient is given Rhus and Hepar flipped
prog on age and sign - Bowel-tonics
generally measures - Palliative & Rad
is in Reduc - Truss - always try this
soft pad generally used for children. In
old hernia use wood or glass bottom
of Rubs up irritation - It operates by causing
pulmonary and giving rest to inflamed
parts. Secure truss outside and day - Keep
on truss while bathing, don't take off
at operation of bowel -

A concealed Inguinal hernia is where it bows in inguinal Canal. When out bows where only tendon External oblique Cremaster muscle posterior conjoined tendon — Direct Ing Hernia where it goes through External ring and Dent to Int Inf ring to femoral H. tissue is conjoined tendon sometimes have cremaster muscle may be absent. Treatment very simple the same as reduce & operate. Seat of Ring Ing. Hernia has no proper peritoneal covering — open down as low as possible cut down at the very bottom — If certain — If sough is under of sometimes peritoneal Rec — apply truss for some time until is born ~~[illegible]~~ very stiff pad — bath part every day — with 4 B. to ½ Alcohol ℥j —

Femoral Hernia — belongs to femoral 3 parts — 1 all parts below P. Lig 2 parts concerned in Crural arch — and parts in pelvis — Integument very delicate denude by pinching — 2 Superficial Epigastric Pudic and Lymph glands — 3 — mass of cellular tissue contains fascia a portion of superficial fascia extending across Saphenous opening — 4 Femoral sheath femoris — 2 part — Int and Ext Anterior part is attached to Poupart's Lig and part is not sharp it dissected to get behind femoral vessel — Tank in all by shock of vessels is a prolongation of Subperitoneal fascia and Rhaea fascia

Crural arch – all parts superior to poupart
lig ulnar – and the skin lig is gone beneath
have passed many and thence runs
spread of vessels nerve artery vein and
[illegible] and crural ring –
Inward by Cyanet lig out by vein up
by poupart lig – lower upon [illegible]
Internal parts – Infundibul or sac
by peritoneum. formed by fascia transversalis
[illegible] and fascia. Round Hernia

Anatomy of parts in Inguinal Hernia
natural.

Coverings of Hernia
Integument. Skin. Sup fas. Intercolumns
Cremaster muscle Infundibul fas
peritoneum the Contents
Tunica Vaginalis Omentum
or Coating of Intestine, Contents
& Infundibulum
5 Seats of Strangulation Int & Ext
Mouth of Sac Neck – Superior
margin of Conjoined Tendon
Inclusion of Island and second, first pitch
behind pubis & makes tense no the
abdominal muscles & from the Rings

Thos. J. Dunott

General. Where intestine goes through the crural ring. Rotting to do but Inguinal generally happened in the female. Description of parts into 3. the parts below Poupart's Ligt. 2 projects beneath this 3 parts all within the cavity. 1. Tegument (characterized by delicacy) 1st Superficial fascia (having lymphatic glands & pudic artery) 3rd Fascia Lata divided into 2 portions Sartorial & Pectineal. Angle of junction is Saphenous vein. The fascia where lets Saphenous out on outside is Cribriform called the Ligt. Hasdorfs edge. inserted along with Gimbernat's Ligt. then Crura to sheath of vessels.

Under Poupart's we have Crural arch. Psoas & Iliac muscles. the vein & artery & crural ring wh. is occupied by a gland & fascia propria. Ring bounded Inside G's Ligt outside by vein ~~Artery~~ & below by bone & above Poupart's.

Inside. we look at sheath of vessels like a compressed funnel. In pelvis have peritoneum & Ant the fascia Transversalis post the f. Iliaca. then f. forms strong attach. to Poupart's rendering it impossible for hernia to get out there. Epigastric artery is outside sometimes Obturator. Cut up forward always. The gut pushes down the fascia propria & then strictures. At mouth of sac G's Ligt. Falciform process. but at the Crib form. Have coverings to a F. H. Sac Inf fascia fascia propria & Hernial Sac.

Fascia Propria - [illegible]. Structure in one of 3 places. At Gimb. lig. Mouth. Sac and may have no Sac

II. FEMORAL OR CRURAL HERNIA.

Definition. Where hernia goes through crural ring
Sex most liable.
Varieties. Obliquis or concealed
Anatomy of the parts concerned in femoral hernia.
Mode of formation.
Seat of Stricture.
Symptoms.
Diagnosis.—May be confounded with—1. Inguinal hernia. 2. Bubo. 3. Varicose femoral vein. 4. Psoas Abscess. 5. Fatty tumour. 6. Aneurism.
Prognosis.
Dissection of the tumour.
Treatment.

CONCEALED FEMORAL HERNIA.

Definition.
Mode of formation.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. UMBILICAL HERNIA.

Definition.
Synonymes.
Varieties—1. Congenital. 2. That of young persons. 3. That of adults.
Exact point of protrusion.—Depends somewhat on the age of the individual.
Contents of the hernia.
Form.
Size.
Symptoms.
Diagnosis.
Prognosis.
Dissection of the tumour.
Treatment.—Modified to suit the age of the individual.

IV. VENTRAL HERNIA.

Definition.
Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. PUDENDAL HERNIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VI. VAGINAL HERNIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VII. PERINEAL HERNIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VIII. THYROIDEAL HERNIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IX. VESICAL HERNIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

Umbilical - at Birth and young
and in the adult - diagnosis - at
Birth internal Cage - by constituents of
cord or skin - generally accompanied
by taking a hemispherical body
covered by leather - keep it down by
adhesive plaster and Bandage. If
Child 2 yrs of age - drag simple
may resort to ligs - use a Wound
body attached to an elastic
strap (return protrusion pinch sac
and put ligature same 3 times
here to cut here - create a great
deal of pain - ulceration takes place
and slough off sac - In adult the
only one is pad and Spring - If very
large and amount cav - if pedunculated
Dont turn back but palliate - only
one stockhorn in strong of recent
divide on outside sac if recent
if old keep - the sac out the cut is

X. ISCHIATIC HERNIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XI. PHRENIC HERNIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XII. MESENTERIC AND MESOCOLIC HERNIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XIII. STRANGULATION OF INTESTINES WITHIN THE ABDOMEN.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XIII. INJURIES AND DISEASES OF THE ANUS AND RECTUM.

IMPERFORATE ANUS.

Definition.—Congenital occlusion of the natural orifice of the rectum.

Varieties.—*a.* Simple contraction.

b. Closure by a thin membrane.

c. Termination of the rectum in a *cul-de-sac*, no vestige of the anus being present.

d. Termination of the rectum in other organs.

e. Formation of a septum above, while the anus itself is open.

Causes.

Symptoms.—Depend on the nature of the defect.

Diagnosis.—Has been confounded with colic, &c.

Prognosis.—Depends on the form.

Treatment.

Treatment when the usual operations cannot be performed.—Various operations for artificial anus.

WOUNDS AND LACERATIONS OF THE ANUS.

Varieties.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

INFLAMMATION OF THE ANUS.

Varieties.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

ABSCESS OF THE ANUS.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

PRURITUS.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

NEURALGIA OF THE ANUS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SPASM OF THE ANUS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ATONY OF THE ANUS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

BLENORRHAGIA OF THE ANUS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HÆMORRHAGE FROM THE ANUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ORGANIC STRICTURE OF THE ANUS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

TUMOURS OF THE ANUS.

Varieties.—Verrucæ, condylomata, &c.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SCHIRROUS OF THE ANUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ULCERS OF THE ANUS.

Varieties.—*a.* Common ulcer. *b.* Aphthous ulcer. *c.* Venereal ulcer.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FISSURE OF THE ANUS.

Definition.
Causes.—Constipation, piles, hard fœces, mechanical injuries, spasm of the sphincter, &c. &c.
Symptoms.
Diagnosis.—Often confounded with neuralgia, sacs, &c.
Prognosis.
Persons most liable.—Women from their sedentary habits.
Progress.—Generally slow; may be rapid.
Extent.
Treatment.—Various methods employed:
a. Washes and ointments of various kinds.
b. Dilatation.
c. Incision of sphincter.
d. Excision of fissure. (Mothe, Guerin, Velpeau, &c.)

POUCH OF THE ANUS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PROLAPSUS ANI.

Definition.

Varieties.—1. External. 2. Internal. 3. Prolapsus of the mucous membrane alone. 4. Prolapsus of all the coats of the intestine, (doubted by some.) 5. Reducible. 6. Irreducible.

Causes.—1. Predisposing. 2. Exciting.

1.—*a.* Childhood and old age. *b.* Constitutional relaxation. *c.* Want of tone in the muscular apparatus of the anus. *d.* Debility of the whole intestine. *e.* Peculiar arrangement of longitudinal fibres of the rectum.

2.—*a.* Constipation. *b.* Lodgment of foreign bodies in the rectum. *c.* Piles. *d.* Ascarides. *e.* Drastic purgatives. *f.* Prolapsus uteri. *g.* Stricture. *h.* Stone in the blade. *i.* Violent coughs, &c.

Extent.—Varies in different cases.

Symptoms.—Depend on the form of displacement.

Diagnosis.—Piles, &c.

Prognosis.

Treatment.—Indications. 1. Return the protruded part. 2. Maintain it reduced. 3. Remove the cause of prolapsus.

Mode of returning the prolapsus.

Measures employed under the second indication.—*a.* Laxative diet. *b.* Voiding fœces in the erect posture. *c.* Astringent washes and ointments. *d.* Pressure. *e.* Pessaries. *f.* Cold douche. *g.* Ligature of small folds of the mucous membrane, (Heavyside and Howship.) *h.* Excision of radiated folds, (Hey and Dupuytren.) *i.* Excision of a circular portion of mucous membrane, (Sabatier and Ricord.) *j.* Excision of a portion of the external sphincter, (Robert.) *k.* Radiated incisions and the nitrate of silver, (Coates.) *l.* Cautery, (Chesselden.)

Measures employed under the third indication.

Treatment of irreducible prolapsus.

PROLAPSUS OF THE RECTUM.

Definition.
Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FISTULA IN ANO.

Definition.—A suppurating cavity of greater or less extent, situated in the neighbourhood of the anus and rectum, discharging by one or more orifices, either externally or into the gut, the walls of which it is very difficult to cause to adhere.

Causes.—Any cause, constitutional or local, calculated to produce inflammation in the cellular tissue surrounding the anus or rectum, may give rise to Fistula.

Varieties.—1. Incomplete or external blind Fistula. 2. Incomplete or internal blind, or occult Fistula. 3. Complete Fistula.

Course or direction.—Varies.

Number.—Varies.

Depth or extent.—Varies.

Seat of the internal orifice in Fistula.

Symptoms.—Vary with the variety.

Mode of examining the anus, for the detection of internal Fistula.

Diagnosis.—May be confounded with the urinary fistula, when external. Occult fistula may be confounded with *sacs of the rectum, internal piles, ulcers, blenorrhagia,* &c.

Prognosis.—Varies in different cases.

Causes which prevent closure of the Sinus, and which must be overcome.—1. The action of the sphincter and levator ani muscles. 2. The surfaces becoming callous. 3. Lodgment of pus. 4. The passage of fœcal matter through the fistula.

Treatment.—Various plans of treatment have been employed, and frequently constitutional as well as local remedies are required.

1st. or Constitutional.—Modified to suit the case.

2d. or Local—

a. Baths, mineral waters, &c.

b. Caustics and cautery.

c. Compression—excentric and external.

d. Ligature.

e. Incision.

f. Excision.

After treatment when operations are performed.

Method to be preferred.—Depends on circumstances.

PILES.

Definition.

Varieties.—1. Blind. 2. Open. 3. External. 4. Internal.

Causes.

Sex most liable.

Class of Society most liable.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.—1. Palliative. 2. Radical.

WOUNDS OF THE RECTUM.

Varieties.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

Piles – Diagnosis must be made by sight, with Speculum – or by straining forcing tumors out – of Sphincter Ani – Symp – Sometimes have discharge of blood varying from a few drops to a pint and a sense of fullness in rectum and if constitution is modified by the loss of blood must intervene to save the life of patient – Some cases let him be – as in Apoplexy – of Blistering – attack of Piles – Simply an inflammatory attack based on the presence of piles – never leave piles strangulated – 1 dilated vein – 2 Flashy pile in entire small artery or vein – 3 Erectile piles – always into communement – 4. Result Cavernous of capillary – vein when open into rectum forms – the ~~tissue~~ in rectum never cut into a tumor which can squeeze – out blood

Palliative Treat use injec cold water. Evacuate bowels very gently never let him overeat at night simple diet – Administration of Iron every night and Balsam Copaiva If Bleeds this wont do – must use a Astring cold water Astring appl – Solution of Tannin – A gram persimmon in Rhatany –

Rad - I - depends on kind - If have hard bloody tumor - cut out pile - only in this one case - If one acute inflam - warm or cold poultice first - attempt to put in hernia when get back If tumor solid cover skin or mucous membrane cut of after passing needle through and let thread out so as to pull out, only safety in these bleedings pull out and tie vessel or apply actual cautery If have erectile tumors don't cut off apply ligature Nitric acid pull tumor down keep it out minute wash alkaline solution or strangulated the tumor cauterize - wash tumor with vinegar - and push back Open - Leg - Put force tumor down put wire on and strangulate cut the skin - if any covers and let wire - pass needle in let canula remain or 4 8 11 days -

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RECTITIS.

Definition.
Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS OF THE RECTUM.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ULCERS OF THE RECTUM.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FOREIGN BODIES LODGED IN THE RECTUM.

Nature of these bodies.
Mode of introduction.
Symptoms developed by their presence.
Diagnosis.
Prognosis.
Treatment.

STRICTURE OF THE RECTUM.

Definition.
Varieties —1. Spasmodic, 2. Permanent.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SCIRROUS OF THE RECTUM.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ESTABLISHMENT OF AN ARTIFICIAL ANUS IN CERTAIN CASES OF COMPLETE OBSTRUCTION OF THE RECTUM.

XIV. INJURIES AND DISEASES OF THE URINARY APPARATUS.

Under this head is included all the affections of the Kidney, Ureter, Bladder, Perineum, Prostate, and Urethra.

I. AFFECTIONS OF THE KIDNEY.

WOUNDS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

NEPHRITIS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS IN KIDNEY.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PYELITIS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HÆMATURIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

Wounds of Abdomen Superficial where the viscera or peritoneum is not injured - penetrating where sharp instrument may go through the abdomen and penetrate every thing within In slight wounds of intestine if only third of diameter long put back without stretch of longer don't put back without suture with glove suture shoe cut across some say make artificial anus - Randolph inaugurated not very good because mucous and serous surfaces but others adhering to operation by putting hollow cylinder don't use it - for operation recommended by Gaston - Lembert was not to give - 4 times to intestine serous muscular fibro cellular and mucous pass delicate needle armed with thread bring in contact 2 serous surfaces (the open of Lembert) pass the needle through lips of intestine the suture and by approximating the edges tie the edges, this brings in contact two serous coats - don't put the threads too close Lambert open - differ in not putting tissue through mucous membrane In closing external wound never put a suture through muscular parietal only through skin if do it leave open

Stomach 3 kinds - without external wound - 2. small punctured wound 3 lacerated and small cut wound 2 whole portion of stomach carried away - when called see if has lacerations or if more prostration if has hiccoughs vomit and also vomit blood - In 15 minutes the whole abdomen is distended and excessively tender

Prognosis - very grave - danger is peritonitis sometimes the effusion of plasma so rapid ~~and~~ that nothing heal - Peritonitis chief danger use active antiphlogistics sometimes say recumbent posture laminae bowels operate by injection - leech safe

If stabbed the contents come out but dilate wound use antiseptics - put patient on face or side but the blood run out - when stops close the cut wound - If hemorrhage is great stop by bleeding to syncope - If small wound cut and suppose prone symptoms of prostration - escape [illegible] - dilate wound so as to avoid wounding cut away the blood and sew up the stomach - sew up external wound patient on his face

If have a large portion taking away may live but rely on sewing up
let your stitches go through the abdomen wall to prevent it moving about. Opii
great shut anchor - at 5-day open the
bowel by Injection
Intestine - Same discription -
can find out no fistula Immediately
an exact nature of blood great pain
and shock - never cut open Abdomen
antiphlogistic - In opt wound have
flies coarse of sulph Hydrogen -
Treat - If gun shot wound or cut
with wound on dependent - position
In gun shot wound dressing as must
though in clean cut close with stitch
and adhesive plaster - look out here
for suppuration - Where intestine is
torn if can feel it or see it treat
wound and sew it up - if can't close
external wound partially and put on
a poultice may have fistula -
Liver - considered very fatal - may be
torn by blow upon external wound
diagnosis - if liver be lacerated pain
less pain in right shoulder upon
pressure jaundice - Treat
Bleed him if possible - Inflammation
Treat - wounds of gall bladder
have recovered but generally
die - very cautious -

Wounds of Spleen - 3 kinds - very dangerous. Laceration indicated by local prostration great internal hemorrhage pressure brake mm band - blood mm hypogastric - an accumulation of blood often gives rise to intense peritonitis - If left alone direction of wound prefers hemorrhage short nature of wound it never does dilatation only on internal remedies. If contusion and no wound pick fake if lacerated and torn cut it off tie up blood vessels look out for punctures

Wounds of large vessels - get hold of vessel and tie - If wound penetrating and great prostration turned abdomen put finger in wound and if careful it hold it and dont let go, dilate wound and tie up - If aorta dead in a minute -

Concussion of Abdomen - from severe blow - results in concussion of solar plexus, prostrated, sleepy, pulse feeble cold skin - if no vomiting only concussion Treat Bring on reaction put him a warm bed mustard plaster infect bandy water up the nose

Tumors - See surgical where tumor ~~of~~ is between the abdominal walls and peritoneum - If accumulation tumor not painful coming from blood fluid is pretty tumor or if a tumor armed from a blood and fluctuating generally feel of hernia. can make the diagnosis the spine under - If follow to be small but inconvenient if dont interfere

Intestine danger from superpositions
or peritoneal inflam - If very large
take the cist - If peritoneum contamin
nate close the wound if size of fist
go on cut out peritoneum - If patient
comes with swelling of belly may be pregnan
may suspect complication of schirrus
Ovarian tumors are fatty masses often
encysted and smooth or nodular
may be fixed or not may fluctuate
or hard of movable kidney or ovary
& fixed no one can tell what it
is. If cut in & tumor has formed
extensive adhesion the patient will
die - very often they are imbedded
or such in large bowel hemorrhage
and danger of Peritonitis - opinion
of best surgeons say not cut out
If tumor small person young and
female may cut out - generally lapse
for years in ovarian tumors - Two
operations greater and lesser one
laying open the whole abdomen
lesser - small incision serve tumor
drain it to surface tapping let out
fluid drain out see to it and heal
back after it slough off
Fistulae in some cases apply
bands to keep the fæces from flowing
in large pore for edges close
the wound - Cool compound with
antiseptic cotton

gastrotomy — Patient swelling
large body growing use to great
inflam — if can feel it take
it out make an incision and
down to stomach take out by small
orifice — Pump out stomach
only useful in cases of most
corrosive character — To introduce
the tube place patient in sitting
position have jumper under pushes
tongue back and push tube down
throw down warm water and
draw it out

ALBUMINURIA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

DIURESIS SIMPLEX.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

DIURESIS UREOSA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

DIURESIS SACCHARINA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

DIURESIS CHYLOSA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

DIURESIS SEROSA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

SUPPRESSION OF URINE.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

URINARY CALCULI.

Definition.

Forms assumed by Calculus Matter.—*a.* Amorphous sediments. *b.* Crystallized sediments or gravel. *c.* Solid concretions or Stones.

1. *Amorphous Sediments and Gravel.*

Lithic Sediments—
- *a.* Yellowish sediment.
- *b.* Red or lateritious sediment.
- *c.* Pink sediment.

Crystallized Lithic Deposites.
- *a.* Red gravel.

Oxalic Acid Deposites.

Phosphatic Deposites—
- *a.* Triple Phosphate, or Phosphate of Ammonia and Magnesia.
- *b.* Phosphate of Lime.
- *c.* Mixed or fusible Phosphates.

2. *Stone or Calculus.*

Varieties.
- *a.* Lithic acid.
- *b.* Lithate of ammonia.
- *c.* Phosphate of Lime or bone-earth.
- *d.* Phosphate of Ammonia and Magnesia, or Triple.
- *e.* Phosphate of Lime and Ammonia, and Phosphate of Magnesia, or mixed Phosphate, or Fusible.

Urinary Calculi – are stones developed by salts which exist naturally in the urine though sometimes they are found to consist of those which generally do not exist in the urine. Hence the key to the treatment is to modify the urine. Most of calculous deposits are formed originally in the kidney and they go to the bladder in the form of sand they may be contained however in the kidney, urinary bladder, prostate gland or urethra causes predisposing & occasional – by the male urethra from its tortuous course is liable to retain the urine in the little sacculi – Race, hardly ever found in the negro – c almost peculiar to very young or very old subjects – diathesis runs in families some in which every member is troubled with stone, this gives an important indication for treatment and always endeavor to remove the diathesis by change of diet climate water &c – e – This is a disease of the temperate zone. Not near as often finding it in hot or very cold climate the reason of this very obvious for the close relation existing between the skin and kidney causes the latter to sympathize whenever any change occurs in the skin by gradation of temperature – since in climates constantly cold the two have time to accommodate themselves the same latitude in hot climates – but in temperate countries where changes in the weather are very sudden the mutual accommodation cannot be made and hence it acts as a predisposing cause of stone & Mode of life this is a disease of the rich in consequence of their luxurious habits and indolent temperament – and many constant disorders in

the digestive apparatus and weakening the habit of body. Water – Limestone in ions furnish a great number of cases and hence many surgeons suppose the water to be a predisposing cause, the probability is that other causes have existed in these regions, not known to us – for the in. some districts of this nature the use of affected persons is very great yet in others we can find only isolated cases capable of being referred to other causes – Dyspepsia will cause it by inducing sympathetic disorder of the urinary apparatus – We may have deposit of lithic acid after urinating must not be alarmed by this deposit (red or white) give mercurial pill regulate the diet and stop it devel

Local causes – Stricture of the urethra by preventing the bladder from being perfectly evacuated retention of the remaining urine causes the salts to be deposited and in this manner gives rise to stone. Enlarged prostate in the same way – sac of the bladder by giving a nucleus will develope stone. Paralysis from any cause, will give rise to it. hence the ind in such cases to draw off the urine night and morning Chronic Inflammations by giving a nucleus as a drop of blood pus, lodgment of various bodies whether foreign or otherwise which serve as nuclei

Usage of stones – They vary from size of a mustard seed to very large size – the largest ever taken from bladder of a man weighed 44 oz. Vary in form this often indicating the kind – If they are rough looking like a chestnut burr in all probability they will be oxalate of lime – Phosphatic stones are never rough but are the hardest and most porous number varies from one to 1200. Generally deposited around a nucleus in the form of lamina the laminae have been found to consist of different deposits – showing in consequence a striated appearance the nucleus is not always in the centre but may be on one

Side. Some Stones are formed between very minute Sand by Lettric Air connected together by Mucus According to Brockett —

f. Oxalate of lime or mulberry.
g. Carbonate of lime.
h. Alternating.
i. Mixed.
j. Cystic oxide.
k. Xanthic oxide.
l. Fibrinous.
m. Silicious.
n. Prostatic.

Origin and increment of calculi.
Forms of calculi.
Size.
Specific gravity.
Surface.
Colour.
Odour.
Nucleus.
Consistence.
Chemical composition of the individual calculi.

CALCULUS IN THE KIDNEY.

Symptoms.
Diagnosis.
Prognosis.
Treatment.

II. AFFECTIONS OF THE URETER.

WOUNDS.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

INFLAMMATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PASSAGE OF CALCULUS MATTER ALONG THE URETER.

Symptoms.
Diagnosis.
Prognosis.
Treatment.

STONE IN THE URETER.

Symptoms.
Diagnosis.
Prognosis.
Treatment.

DILATATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

III. AFFECTIONS OF THE BLADDER.

WOUNDS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

RUPTURE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

ACUTE INFLAMMATION OF THE MUCOUS COAT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CHRONIC INFLAMMATION OF THE MUCOUS COAT.

Synonyme.—Catarrhus vesicæ.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

Retention

~~[illegible]~~ differ between Retn and suppr - 1. May be slow or sudden by an injury - 2. Inf. 3 - no inflamm preceding this in retention. Moral Intoxication 4. Mechanical causes. Always ascertain cause before we use treatment - generally happens in male - If - found in female a calculus - Moral - or a stricture, and in Ulro Gestation - Symptoms vary - may be sudden or gradual - and may be intermittent Extreme agony no pain to be compared swelling abdomen pain and swelling extends for any time, with produces fever, and can't be still, may be mistaken, a constant dribbling takes place by being forced out by degrees. If he says I am liable - by doubt - Yes - Ag an goes away in ½ hour - it is spasm - and sometimes the muscles permanently working - If he says never had before - Prob of applying sub prob - is stricture, if irregular in life certain - If the person prob is in long of prostate gland - feel by rectum - If in Female, ask if so evening by a spasm if not sudden Some mechanical intermittent - from faulty innervation. Prog - If spasmod and patient sub can cure; if mechanical stricture If an enlargement, of prost gland or thick of bladder cant cure only palliate

INFLAMMATION OF THE MUSCULAR COAT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

INFLAMMATION OF THE PERITONEAL COAT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IRRITABLE BLADDER.

Definition.
Causes.—Teething, &c.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

SPASM OF THE BLADDER.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

PARALYSIS OF THE BLADDER.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

RETENTION OF URINE.

Definition.

Causes.—Paralysis of bladder. Inflammation of bladder. Spasm of the neck of the bladder, from cold, excess in wine, cantharides, &c. Irritation produced by dentition, hysteria, &c. Enlarged prostate, displacements of the womb, pregnancy, stricture of the urethra, calculus, laceration of urethra, abscess and tumours of the bladder.

Age most liable.
Sex most liable.

Symptoms.—Depend very much on the cause.

Diagnosis.—Incontinence, tumour of the bladder, &c.

Prognosis.—Depends on the cause.

Treatment.—*a.* Warm bath. *b.* Opiate injection. *c.* Evacuant injection. *d.* Loss of blood, general and topical. *e.* The catheter. *f.* Forcing the stricture or dividing it, where it exists as the cause of retention. *g.* Puncturing the bladder, which may be done in three places by the *rectum* above the *pubes*, or by the *perineum*. *h.* The inhalation of ether.

Remedies useful in certain rare cases.

a. Quinine in intermittent or periodic attacks.

b. Caustic bougie in irritable neck of bladder or spasmodic stricture.

c. Affusion of cold water in relaxed patients.

d. Strychnia in paralysis of bladder.

e. Alkalies, when the urine is too acid.

f. Large doses of opium, and perfect quiet when the usual modes of relief fail.

INCONTINENCE OF URINE.

Definition.

Age most liable.—Early life and advanced age.

Causes.—Diseased urine; habit; irritable bladder, hereditary predisposition, paralysis of the sphincter vesicæ, from any cause, &c.

Symptoms.

Diagnosis.—Retention of urine, contracted bladder, &c.

Prognosis.

Treatment.—Depends on the cause.

HYPERTROPHY OF THE BLADDER.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

CONTRACTION OF THE BLADDER.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

SACCULATED BLADDER.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

If autumn generally cause

If person comes to me can't pass water by a opium - may relax. hot bath - Blend him opium - by rectum - if got other give him, or chloroform - saves his blood Sometimes other fails - introduce catheter don't use force coax it - pass gently

If permanent Stricture bump him under chin, take silver catheter have stilettes pass canula and put the stilett and do the same larger one, then gradually put in catheter itself if Stricture is extensive and shall operate or not - if scant it is better to open urethra, and dend stric

If chronic better to tap bladder If have an enlarged prostrate coax the catheter or must put an instrument in gl and, have hard catheter, tapped on bebelied on one sides according to side enlarged - may use with or without Stilette take a common wire - and bend it. introduce in catheter, and it will raise the point may put it in by pulling in rectum, and then push up its curve, and after if this don't do bend wire still more - if can't get in this way, operation - tap bladder in Paralysis - no Pain - only man pass catheter and takes away urine

If Stone lodges in neck of bladder push back by sound - and if cant do this operate - sometimes must tap bladder for lacerations of perineum -

Three ways - for tap bladder if urethra lacer - cut through perin - If through the lung - Pleurisy - open through the pudom above the pubis - between the bone and Peritoneum and bone - Cut through the Skin and dissect attached to the abdomen by trespassed bound - In lacerations make incision in perin. In intermittent tendency must be broken up - By quinine or something of that kind - Another cause is excessive irritability of neck of bladder cauterize immediately. Paralysis often benefit by Strychnine galvanism - only to be employed in chronic cases great good results from examination of urine - Sometimes nappness pain must wait for time large doses of opium -

Incontinence of Urine - unable to retain - Causes may be effect of simple habit If alkaline or too acid not fault of patient. If result of simple habit - Cure by Rupping patient on face - put a blister on sacrum, and if dont do - give opiate.

In old person cant do anything

ULCERS OF THE BLADDER.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

TUMOURS OF THE BLADDER.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SCHIRROUS AND FUNGUS OF THE BLADDER.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HERNIA VESICÆ AND PROTRUSION OF THE BLADDER.

See "Hernia."

RECTO-VESICAL FISTULA.

Definition.
Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VESICO-VAGINAL FISTULA.

Definition.
Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

STONE IN THE BLADDER.

Mode of formation in the bladder.

Causes.—1. Predisposing. 2. Local.

1. *Or Predisposing.*—*a.* Sex. *b.* Race. *c.* Age. *d.* Constitution. *e.* Climate. *f.* Mode of life. *g.* Water. *h.* Dyspepsia.

2. *Or Local.*—*a.* Stricture of the urethra. *b.* Enlarged prostate. *c.* Sacs of the bladder. *d.* Paralysis of the bladder. *e.* Chronic inflammation of the bladder. *f.* Lodgement of foreign bodies of different kinds in the bladder, which serve as nuclei.

Varieties.

Size.

Form.

Number.

Mode of growth.

Condition in the bladder.—Encysted, or loose, or encrusted.

Symptoms.—Depend on a variety of circumstances.

Diagnosis.—Manner of sounding and use of the stethoscope, &c.

Prognosis.—Depends on the age and sex of the person, the condition of the organs concerned, and the size, composition, and condition of the stone in the bladder.

Dissection of the bladder when the stone has existed for some time.

Effects upon the ureter and kidneys.

Treatment.—Several indications.

a. Remove the diseased state of the urine upon which the secretion of the stone depends.

b. Palliate the sufferings of the patient.

c. Remove the stone.

1. This indication may be fulfilled by a number of agents, most of which have already been alluded to under the head of "Calculus."

2. The second may be accomplished by demulcent drinks, acid or alkaline medicine, according to the composition of the stone, warm baths, leeches, anodyne injections and perfect rest.

3. The third is answered by a variety of methods.

a. Extraction by the urethra.

b. Solution by injections.

c. Lithotomy, which includes—1. Cutting upon the gripe. 2. The high operation. 3. The single lateral. 4. The bilateral. 5. The recto-vesical.

d. Lithotrity and Lithontripsy.

Preparation of the patient for either of these operations.

EXTRACTION BY THE URETHRA.

Cases to which it is applicable.

Condition of the bladder before the instrument is introduced.

Instruments employed.

Position of the patient during the operation and mode of performing it.

Urinary Calculi are stones produced by salts which exist naturally in the urine sometimes made of salts not usually found in it — Key to treat is to modify urine, the stone is generally separated in Kidney and goes down to the bladder in female and causes — Tortuous course of urethra in male — B — The mode of life — a disease almost peculiar to young if found in old caused by some other disease. Constitution — Autumn families — Calculus diathesis — ask the patient — if in any or family had it before — and removed — from place climate in cold and hot climates seldom have it — in temperate zone — In regular climate — The skin and Kidney — sympathise do not do it in ~~sep~~ masses from mode of life — luxurious diet and indolent — and also from bad air & faulty — Hard water — limestone regions furnish great notoriety but not only water but other — predis — h — but if urine or oxalic acid find red precip purge — give blue Pill and Diural

Local - Causes - are mechanical by keeping urine contained in bladder long time, give time for nat. salts to deposit - and some - the rugged pits of bladder - getting deposs - when no Natural predis cause - sometimes no pain - and paralysis - let alone and if have pain - operate - Sep of mucus - a globular may be formed a stone, reduces bd genus of fer - hardness - with lay of coats for foundation of stone.

Symptoms - Prog. times are long -

In 99 out of one 100 cases stone is found in young or very old - owing to the defective apparatus in middle being in very good order excepts form a prominent cause

Diathesis great many cannot be cured hence have it in hot or cold climate temperate zone that most prevent the why of this, the closest analogy exists between Kidney & Skin - where great changes occur - and disturb the equilibrium between Skin & Kidney - hardly ever met with in the rich luxurious living generally gives it - hence must change mode of life water - limestone - said to cause - hardly can be true - Dyspepsia anything which will cause it

may have acid give blue pill and regulate diet will stop developement if have white deposit the same thing occurs let go on and he will have stone

Local causes Stricture of Urethra among the bladder being imperfectly ~~[illegible]~~ evacuated retention of urine by permitting the salts to deposit will form a nucleus —

Enlarged prostate by causing retention will have the same effects Sac of bladder in the same manner by affording nucleus will develope stone — Paralysis from any cause — general or local attend to urine — urinate thoroughly — Don't take cure for formation of stone as no symptoms being present use exercise regular & money — Chronic Dif — by causing nucleus as drops of blood or pus or mucus — f — ~~[illegible]~~

diagnosis of stones —

Stones vary in size from mustard seed to a large size in horse one has been taken from a body so large as 10 in in circum weighing 44 oz — vary in form — well very like indicate the kind of rough baking balls a chestnut burr or balls of bone — sharp are never as rough as these — they are the worst — number vary from one to 12 000

growth of Urinary Cal — generally around an animal lamina — formed of different kinds of stone given a strata appearance in the nucleus they lie on any portion of the, stone are formed all around nucleus — by little acid connected together by

Mucus - according to Beckett Mucinous calculi are organized - because it can be macerated and find a membrane and also lately microscope - may is not the only animal but the pig not which and many others - Phenomena - suppose in Kidney or any where the phenomena differ if in Kidney - pain in lumbar region which causes remote bloody urine pain darting down inter lumnatly in testicle retracting of same testicle - general health of the patient gives away - any other things will give the same symptoms but they can generally be removed by appropriate remedies doesn't commit yourself until formation of abscess - Hence danger very great in all probability he will die - unless let out by suppurial If gets in Ureter will see patient in great agony writhing on floor skin cold retraction of testicle on same side pain shooting down ureter and sometimes nausea and vomiting and frequent vomiting - the same symptoms occur in Iliac fascia cramp colic and in strangulated hernia - hence must inquire if had another attack and has passed sand and stone -
when gets in bladder have stress the desire to urinate becomes frequent the stream stops - falls unconscious of some only in bladder when use any exercise also have bloody and mucus urine - and an uneasy unbearable sensation in the glans penis making him squeeze and pull the prepuce these generally undermine the constitution two, may have all the symptoms

but never hazard an opinion until examined by a sound, some have gone from early life to death and never make any complaint. Stone may be free or encysted the latter is developed in sac of bladder becoming lodged in the wall of bladder and from interfering with its contracts will give rise to all symptoms the mulberry calculus from roughness causes effusion of plasma which ~~[illegible]~~ gives to side of bladder. again the wall may be ulcerated away from sound giving rise to intense inflammation mixing with mucus makes a plaster. no contraction of bladder must be pulverized. The effect produced by lodgement of stone depends on location if in Kidney it converts into a simple sac - giving rise to progressive absorption or ulcerative inflammation. when lodges in ureter - dilatation and destruction of organ and Kidney also certain symp added - urine will become perfectly normal and pains increased pain from collecting in Kidney and hence the most important danger must use the most active treatment Bleeding warm bath. the bladder becomes contracted by the presence of stone or excessive dilatation. If lodges in neck of bladder give a congestion and dilatation of ureter and bladder - an operation in such a condition will save a man's life it is always important to get rid of a stone a sound. never comes of comes from a journey or if in pain dont touch prepare him by warm bath by enemata demulcent drinks, the Red

the urine must not be too great, have the urine short — must not be too large, solid and smooth — sound him first in upright posture if cant detect lay him down — put him nearly on his head to disengage the stone from the sac — and sound him with full bladder — after fasting here may be detected some times by empty bladder in fact the greater number of positions the more likely to find the stone. Treatment. 1st a — Order to carry out this examine urine by microscope and acid and alkaline tests — very simple tests in case litmus red and turmeric paper only gives a sure if too acid and irritating bladder change the condition. If only matters paper pink there may not be too much acid or urine, have use alkaline treatment. If urine be so acid to turn yellow paper to orange too alkaline and give some acid — not important if fail to secure result to microscope — If making mistake calculus will have crystals of oxalate of lime from drying on plate a drop of urine, called bumbbell crystal uric acid is nitrous — uric acid. If crystals are arranged in lamina they are uric acid — remedy is an alkali — if amorphous sand indicates indigestion.

Goldenbund on urinary calculi — In cases of phosphatic ~~alkali~~ in great 10 cases require an alkali some require alkali when acid treatment fail — the crystals differ from urea — Bilious urine a turpid muddy urine shows danger of irritation. Shows also that urine is modified by various causes — If patient is dyspeptic if hereditary we try and remove these causes by change diet hepatic stimulate and alkali an acid test the neuromuscular. and vice versa can Palliate lime and bicarb soy chiefly the diversions powder See's Pill. 2 and 6 to pall symptoms — opium great comfort large doses demulcent diluents diuretics and warmth the simple infusion of Eryngium Philadelphicum 3j to 8j add bit 2 warm bath — urinary cases must employ instrument in

Grand low pulse great agony to relieve pain at once, after great shock

SOLUTION BY INJECTIONS.

Cases to which it is applicable.
Agents employed as solvents.
Manner of using them.
Dangers.
Utility of the measure discussed.

LITHOTOMY.

1. Cutting on the Gripe or Celsian operation.

Cases to which it is applicable.
History of the operation.
Anatomy of the parts concerned.
Manner of performing it.
Dangers.
Utility of the operation discussed.

2. The High or Hypogastric operation.

History of the operation.
Anatomy of the parts concerned in the operation.
Cases to which it is deemed applicable.
Supposed advantages of the operation.
Dangers of the operation.—1. Peritonitis. 2. Extravasation of Urine. 3. Wounds of the peritoneum. 4. Lodgements of fragments of the stone. 5. Hemorrhage. 6. Urinary fistula.
Instruments employed.
Manner of performing the operation.
After treatment.

3. The simple Lateral.

History of the operation.
Anatomy of the parts concerned in the operation.
Cases to which it is deemed applicable.
Supposed advantages of the operation.
Dangers.—1. Peritonitis. 2. Extravasation of Urine. 3. Cystitis. 4. Hemorrhage. 5. Inflammation with sloughing. 6. Incontinence of Urine. 7. Fistula. 8. Wounds of the rectum.
Instruments employed.
Manner of performing the operation.
After treatment.

4. The Bilateral.

History of the operation.
Anatomy of the parts concerned in the operation.
Cases to which it is deemed applicable.
Supposed advantages of the operation.
Dangers.
Instruments employed.
Manner of performing the operation.
After treatment.

5. The Recto-vesical.

History of the operation.
Anatomy of the parts concerned in the operation.
Cases to which it is deemed applicable.
Supposed advantages of the operation.
Dangers.
Instruments employed.
Manner of performing the operation.
After treatment.

LITHOTRITY.

History of the operation.
Cases to which it is deemed applicable.
Supposed advantages of the operation.
Dangers.
Instruments employed.
Manner of performing the operation.
Treatment during the course of operations.

LITHONTRIPSY.

History of the operation.
Cases to which it is deemed applicable.
Advantages of the operation.
Dangers.
Instruments employed.
Manner of performing the operation.
Treatment during the course of operations.

STONE IN THE FEMALE.

Symptoms.
Operation to be preferred when an operation becomes necessary.
Manner of performing the different operations.

HYDATIDS AND ENTOZOOA OF DIFFERENT KINDS IN THE BLADDER.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IV. AFFECTIONS OF THE PROSTATE GLAND.

WOUNDS OF THE PROSTATE.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

Lithotripsy - Cant perform if enlarge gland - not if stricture antrac bladder - Irritable urethra and large and hard stones - must always perform if fav condi One serious objet is crushing stone augments - pain. The instrument may break - The repetitions apt to break constr - so as to make retention -

Stone in Female -

pt old - dilating urethra - with sponge tents - Brings on incontinence of urine for life - 2 Incision - 3rd - cut direct up - Another by dividing on both sides Same objection incontinence in adult - very easy and safe in child not to be adopt in adult - Ano - divide the mucous coat and then distend enclosing coats - Crush the stone is very best instrum

Worms in bladder

Doctor - bleed hot bath - apply to temperature

Stone in bladder 3 ind - pt extract of stone by urethra first by Cooper name - a ind tremendous to carry out carried to bladder opened the bladder and by turning the stone and passage can sometimes get it out if stone is transverse loose

abuse of Belin process - prepare by giving flaxseed tea and henbane - to relax and perineum by plaster of Belladona & by Cullent process in spasmodic retention of bladder - do surgeons used and into the bladder to dissolve stone - no good except by preventing formation of fresh stone can sometimes do good by injecting and in bladder which contains matter continually passing by injecting into bladder Xgtt of nitric acid & chloroform Barley water ℥j
Inject with double syr let remain out after dissolving the matter
continue operation at least once a week
The operation of Lithotomy - 5 or 6 operations
high Lat Bi Lat recto vesical
The oldest is most simple - and now is sometimes - cutting on grip by passing the finger pass up rectum - pull down the stone to perineum & cutting down to stone
The oldest only of service when stone in prostate - 1475 Collot introduced high operation some people in it cut through rectum next pelvic and cellular tissue separate peritoneum - and separating push away peritoneum if bladder is contracted relinquish the operation
Lateral Operation for stone In origin was rudest in all surgery - operated with a sound no operation was to thrust through perineum a double edged knife and get stone out - after this more plan the staff was employed - Anatomy - the perineal triangle 1. 2 - the ischio rectal & 2 - superficial fascia - 3 - Deep perineal fascia or triangular ligament - 4 - Perineal centre of bunch of muscles the sphincter & transversus perinei erector Penis and accelerator urinæ - between these two the surgeon is directed to cut through also the transversus perinei alter - sometimes seen 5 to a dense fibrous membrane, the triangular ligament and about the middle prostatic fascia 1/4 in below

6 membranous part of the urethra
Pubis the urethra passes out and below
Cowpers gland - It is object in this operation
to passe through the prostate gland and
membranous portion of the urethra to get
into the bladder - to do this the Knife goes
through left side - 4 arteries - one inbanally
cut - 2 transverse - sometimes blood 8 the
membranous bleb of urethra and internal
pudic - this is generally cut when the
gorget used, the Chief danger however comes
from the vescle plexus which are much
enlarged, Instruments required - only 3
Knife Staff gutter on one side thus differing
from old staff forceps those usually given
too large - they should be demonstrated - also
a syringe if stone breaks or is encysted or
abscess also as may be hemorrhage well to have
to tie pudic arm finger up the rami of
the pubis & felt for pulsating and take it up
with curved forceps of Physic armed with
needle and lig - also Dupeytrens
instrument for stopping hemorrhage - the
gorget Cheselden was quick to use it Physics
is used in US - begin however with Scalpel
always shave perineum and keep bladder
full either with urine or Barley water if
don't attend to this may get through the
posterior wall always hold staff perpendicularly
Incision begins below Symphysis Pubis to back
of arms and terminating Outward, between
the tubera Ischii and anus - always get
nail in the gutter of the staff before cutting
then depress handle of staff and push the gorget
in at same time changing the angle of
the two -

put patient to bed protecting the bed by oil cloth - give him - Mixture of Tart ant and Morphia and keep down inflammation when wound contracts on the catheter put in smaller one and accustom until the wound has healed - In young subjects opt to cut the median because the Lateral is sometimes done with straight staff - Scheles operation

~~Bladder~~ operation by Smith - Nathan R - cutting the neck of bladder the membranous portion of urethra and left 1/2 of Prostate gland - Concealed Knife or Lithotome Cache great danger of cutting with this the int pudic - Molts operation - performed with common beaked Knife and staff advantage is that can limit the incision should the perineum be narrow - The best kn for open is simple scalpel but keep the forget of Pyhysic - Danger Peritonitis is very common avoid if possible cutting large fat persons - avoid if possible cutting out of capsule for will have some infiltration out to the other side of gland - Inflam of bladder this treated by antiphlogistics and opiates - Sloughing - most terrible if threatened must arrest by most active measure - Incontinence of urine - When the stone is very high when remove the stone it sized and rough borders paralyse the muscles of neck - fistula the wound healing almost but leaving one only can generally cure by be probe dipped in nitric acid pushed

physic applied as blister where the fistula small wound of rectum - very serious, here must try cure it much
Ruff in bladder a catheter recollect that may pass the catheter into rectum hence pass finger up the rectum - having put in catheter dilate orifice of anus and introduce actual cautery at red heat
Br Lateral here both sides cut first suggested by Celsus but first introduced by Dupuytren - anatomy is nearly same strong to cut between between bulb & transverse muscle and get between the accelator urinæ and erector penis -
prepare patient & select instruments -
use scalpel a very short curved staff and double Lithotome Cachet, make incision as in cutting across the perineum as in Celsus - open - when reach staff pit the double, Knife and pass it in turn the Knife and cut and blades and draw out instrument in the axis of inferior strait this gives very large opening - sometimes performed with staff and scalpel where stone is large the very best - never use double gorget some wide contend that bilateral operation is very dangerous from urinary infiltration and incontinence of urine -
Recto vesical almost entirely abandoned because it accompanied with recto vesical fistula when cant get stone out any other way may perform it - pass finger of left hand up the rectum - pass a curved scalpel up

and push into bladder cut directly down - the wound of bladder will never unite - Lithotrity modification of old Marion open prep by passing a stuff into the bladder and putting in forceps and expanding forcibly the modification is by Willis dilating the neck of bladder the patient died and since the operation not recommendable

ACUTE INFLAMMATION OF THE PROSTATE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS OF THE PROSTATE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ULCER OF THE PROSTATE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CHRONIC INFLAMMATION, WITH ENLARGEMENT OF THE PROSTATE.

Causes.
Persons most liable.
Progress.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CHRONIC INFLAMMATION WITH ATROPHY OF THE PROSTATE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

POUCH OF THE PROSTATE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HÆMORRHAGE FROM THE PROSTATE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

EXCESSIVE SECRETION OF THE PROSTATE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PROSTATIC CALCULI.

Nature.
Causes.
Number.
Size.
Composition.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

MALIGNANT DISEASE OF THE PROSTATE.

V. AFFECTIONS OF THE PERINEUM.

WOUNDS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ACUTE INFLAMMATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS IN THE PERINEUM.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

URINARY INFILTRATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

DEPOSITES OF LYMPH.

Causes.
Symptoms
Diagnosis.
Prognosis.
Treatment.

FISTULA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

NEURALGIA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VI. AFFECTIONS OF THE URETHRA.

WOUNDS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HÆMORRHAGE FROM THE URETHRA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

RUPTURE OR LACERATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FALSE PASSAGE.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ACUTE INFLAMMATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CHRONIC INFLAMMATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

GLEET.

Definition.

Causes.—An improperly treated gonorrhœa—disease of Cowper's gland, or the mucous lacunæ of the urethra, disease of the prostate; strictures; sometimes constitutional causes, as scrofula, gout, rheumatism, &c.

Symptoms.

Diagnosis.

Prognosis.

Treatment.—Astringent and alterative injections; the argent nit; in substance; bougies, medicated or simple; constitutional remedies, &c.

GONORRHŒA.

Definition.

Causes.

Symptoms.—1. Those affecting the part itself. 2. Those attacking other parts from sympathy.

Period of incubation.

Diagnosis.

Prognosis.

Extent of the inflammation.

Products of the disease.

Connection between gonorrhœa and syphilis.

Treatment.

STRICTURE.

Definition.

Varieties.—1. Permanent. 2. Spasmodic. 3. Mixed.

Most common variety.—The permanent.

Seat of spasmodic stricture.

Causes.—Vary with the form of stricture.

Progress.—Usually increases very slowly.

Number.—Varies.

Extent.—Varies.

Location.—1. At the orifice. 2. Near the middle. 3. Near the bulb. Surgeons do not agree, however, on this point.

Symptoms.—1. Local. 2. Constitutional.

Diagnosis.—May be confounded with gleet; diseased prostate; stone in the bladder; hernia humourhalis; neuralgia of the testis; neuralgia of the perineum; ague, &c.

Prognosis.—Depends on the variety of stricture, the age and health of the patient, &c.

Termination.—May occasionally terminate in ulceration and thus a cure be accomplished.

Effects on adjacent organs.

Treatment.—Mode of examining the urethra.

Different methods of treatment.

Local remedies.—
- *a.* Dilatation. By bougies, Arnott's dilators, &c.
- *b.* Caustic.
- *c.* Incision from within.
- *d.* Incision from without.
- *e.* Forcing the stricture.
- *f.* Excision.
- *g.* Catheterism,
- *h.* Cauterizing with argent nit; to allay irritability.
- *i.* Absorbent operation.

Constitutional. Remedies.—
- *a.* Blood-letting.
- *b.* Hot bath.
- *c.* Opium.
- *d.* Inhalations of ether.

When the stricture is impervious and the patient cannot pass urine, the bladder must be tapped, but this should never be done until all our other remedies have been employed.

FISTULA.

Definition.

Varieties.—1. In urethra anterior to perineum. 2 In urethra, and discharging through the perineum.

Causes.—Inflammation and abscess, wounds, &c.

Symptoms.

Diagnosis.

Prognosis.

Treatment.—Remove the cause, if possible, then use according to circumstances the catheter, caustics, suture, incision, blisters, plastic operation.

CONTRACTION OF THE ORIFICE OF THE URETHRA.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

ORIFICE TERMINATING TOO FAR BACK.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

TUMORS OF THE URETHRA.

Varieties.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

PAINFUL TUMOR OF THE FEMALE URETHRA.

Varieties.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

HARDENING OF THE FEMALE URETHRA.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

FOREIGN BODIES IN THE URETHRA.

Varieties.
Mode of introduction.
Symptoms to which they give rise.
Diagnosis.
Prognosis.
Treatment.

CALCULI IN THE URETHRA.

Mode of introduction.
Symptoms to which they give rise.
Manner of removing them.

XV. DISEASES OF THE PENIS.

EPISPADIAS.

Definition.
Varieties.
Causes.—Mostly congenital—sometimes accidental.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HYPOSPADIAS.

Definition.
Varieties.
Causes.—Mostly congenital.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PECULIAR MALFORMATION OF METTEAUR.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

BENT OR DISTORTED PENIS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PRIAPISM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

INFLAMMATION OF THE PENIS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

URINARY ABSCESS.

Definition.
Causes.
Varieties.—The urine may be collected in a single pouch or cavity, bounded by adhesive inflammation; it may be widely diffused in the cellular tissue; or it may be mixed with pus, forming a urinary abscess proper.
Causes.—Perforation of the urethra from wounds, ulceration, &c.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

WOUNDS OF THE PENIS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

Chlorine - Bleaching salt $NaOCl$

The compounds of Cl with H which form muriatic acid are $NaCl$ with SO_3 HO

$= NaO + HCl + SO_3 = NaO, SO_3$

Cannot be separated from a certain quantity of water which will adhere to it

ŒDEMA.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

TUMORS.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

WARTS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SHORT FRENUM.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CONTRACTION OF PREPUCE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

PHYMOSIS.

Definition.
Causes.—1. Congenital. 2. Acquired.
Degrees.
Symptoms.
Diagnosis.
Prognosis.
Treatment.—Varies with the cause. In congenital cases an operation is usually required, when produced by accidental causes, we should never operate without a due regard to the condition of the parts.

Operations.—1. Slitting up the prepuce. 2. Circumcision. 3. Division of external portion, the mucous lining being left entire. 4. Lisfranc's operation. Removing a semicircular slice. 5. Velpeau's operation. 6. Removing a triangular piece.

Operation to be preferred.

PARAPHYMOSIS.

Definition.
Causes.
Degrees.
Symptoms.
Diagnosis.
Prognosis.
Treatment.—1. Compression. 2. Cold. 3. Operation.

BALANITIS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

POSTHITIS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

SIMPLE ULCER.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABRASIONS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HERPES PREPUTIALIS.

Definition.
Causes.
Age most liable.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ŒDEMA OF PREPUCE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ADHESION OF PREPUCE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

LOSS OF PREPUCE.

Causes.
Effects to which it gives rise.
Treatment.

SYPHILIS.

Definition.—ϛν φιλέω (mutual love.)

Synonymes.—Lues veneria, venereal disease, morbus gallicus, pox, &c.

History.—1. Was syphilis known to the ancients? 2. Was it imported from America into Europe? 3. If not imported thus, when and where did it originate?

Causes.—Supposed by some to occur often *spontaneously.* Impure sexual intercourse. (See Skey.)

Period of incubation.

Question of a special virus.—Broussais and his school, and others also, denied the existence of a specific virus. The experiments of Ricord, Parker, Carmichael, Mayo, Wallace, &c. prove the contrary.

Does gonorrhœal matter ever produce the primary symptoms of syphilis?

Classification of Symptoms.—

1. Primitive or direct.
2. Successive.
3. Secondary.
4. Tertiary.
5. Diseases unconnected with syphilis—

(Ricord.) or

1. Primary or local.
2. Consecutive, general, or constitutional.

(Hunter.)

PRIMARY SYPHILIS.

CHANCRE.

Definition.

Mode of development.—1. Pustule. 2. Ulceration or abrasion. 3. Abscess.

Physical character.—Varies with the location, number, degree of inflammation, duration, &c.

Character of the pus.—Varies, and is modified by the stage of the chancre.

Stages of chancre.—1. Ulceration, during which the matter secreted will produce the disease if we inoculate with it; it may last several years, but usually only one or two months. (Ricord.)

2. Granulation and Cicatrization. The matter secreted now ceases to possess inoculable properties.

Division.—1. External.
2. Internal, larvated or concealed.
1. Follicular.
2. Indurated.
3 Phagedenic.
4. Furunculus.

Seat of chancre in the different sexes.

Causes.—Sexual intercourse, touching a chancre; during labor the child may be inoculated.

Diagnosis.—Often difficult.

Prognosis.—Varies with the form of chancre. Chancre produced by artificial inoculation; characteristics of—(Ricord.)

Prophylaxis.

Treatment of chancre.—1. Local. 2. Constitutional.

Cases in which mercury should be employed.

Cases in which it should not be administered.

Extent to which it should be carried.

CONSECUTIVE SYPHILIS.

I. BUBO.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

II. SYPHILITIC CUTANEOUS AFFECTIONS.

Varieties.

Period at which they appear.—Sometimes along with the primary symptoms, but generally after these are cured.

Parts of the body most liable to be attacked.

Symptoms.—1. Local. 2. Constitutional.

Diagnosis.

Prognosis.

Treatment.

Bubo - If soft fluctuation - don't blister Iodine point - put on a flaxseed poultice and when the fluctuation is fully established open and treat as ulcer - If pits indolent touch Argent Nitras - If won't heal give give Mercury If find pallid pale dry skin and veins, prostrated tip - and use Iodide potassium - give good diet - Sometimes phagedena will be established - and laying open large arteries, alter the condition of blood - good diet - and Iod Potass put on dressing the suit case

Have sometimes seams forming and destroying skin - lay open and apply Stron. Argent Nitras and give Mercury or Iod Potass accord to condition of patient.

Hard tumor - much enlarge and by Bed - lay - Mercurial Mixed after - Indolent Bubo - must treat by Stim - Inj by Iodoll and Inj - Phagedenic Collodion - by abscess lay open and touch nitrate silver. The cause Diagnosis must be

Condyloma acuminata tumor often seen in children. Effect of transmitted syphilis in young children — Some are predisposed to syphilis and have an exanthematous eruption — Some are perverted dep. in Dr. A. Ross and apply to skin constantly showing D. Scales —

In Condyloma Adults have dry case but come back want cond. test — Shave off after septum —

Cutaneous Eczema simple or dry simple body dry up some fact Rosacea Rash hot so and Scaly converted into vascular Disease up to cure — Pts may be convert into Rupia Scab forming in large formations found on face nodules nose and depend over the pts pustules converted into scab

Rupia so large treat many known people and cond. syph —

Eczema — Scaly Eruption

Tubercular Eczema hard lumps under skin open and become pustules. Change for scab and partly healed spots Eczema the most diff form

* In Sy Rhu - some swelling in shape of Nodi on sides of bones - head or hands - Pain ten times greater than in rheumatism. Specific treat is here necessary altho the course - Antiphlogistic Sym Dover Powder warm bath - and continue plan six weeks just him on sweating stage

Nota Inf - of Periost - extend ulcs to bone and resulting in a deposit of Phosphate - matter - great pain - always local 1st stg Cooling hand - 2 - poppy - 3 Opium and pens - 1st Inject Blister Potass Iod 2nd Blist - and Iod Oint. Sometimes swelling - owing to Serum and Plasma and perostum down to pone
Supply cons - tape above, low and heat simply Wet

III. SYPHILITIC SORE THROAT.

Period at which it appears.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IV. GLANDULAR DISEASE FROM SYPHILIS.

Glands most liable.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

V. IRITIS FROM SYPHILIS.

Period at which it makes its appearance.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VI. SYPHILITIC RHEUMATISM.

Period at which it makes its appearance.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VII. NODES.

Definition.
Period at which they appear.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VIII. DISEASE OF THE BONES FROM SYPHILIS.

Varieties.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

IX. ALOPŒCIA.

Definition.
Treatment.

AMPUTATION OF PENIS.

Cases requiring the operation.
Mode of performing the operation.

CANCER OF PENIS.

Symptoms.—Commencing with a wart, or a tubercle on the prepuce, frenum, or glans penis, and often remaining quiet for years. Being irritated, it becomes painful and enlarges, often rapidly and to a very great extent; ulceration then takes place, accompanied by a discharge of sanious fetid matter; pain, sometimes excessive; constitutional symptoms and inflammation of glands of groin.

Diagnosis.—May be confounded with venereal warts or simple tumors; in its ulcerated stage, with sloughing ulcers.

Tissue affected.

Prognosis.

Treatment.

XVI. DISEASES OF THE TESTIS.

Under this head are included diseases of the testis itself; diseases of the spermatic cord; and diseases of the scrotum.

I. DISEASES OF THE TESTIS.

SUPERNUMERARY TESTIS.

Numerical increase.—Generally one; three have been enumerated.

Diagnosis.—May be confounded with epiplocele, fatty or fibrous tumors in the scrotum, or an encysted hydrocele of the cord.

ABSENCE OF ONE OR BOTH TESTES.

Diagnosis.

Consequences.

IMPERFECT DESCENT OF THE TESTIS.

Varieties.—Where one or both testes have been detained in the abdomen near the internal ring, in the inguinal canal, or in the groin, just outside the external ring.

Causes.—Peritonitis before birth causing adhesions; congenital smallness of the external ring; want of power in the cremaster.

Consequences.—Depend on the situation of the testis; if it is retained within the abdomen, no uneasiness or inconvenience is experienced, nor are the generative functions likely to be interfered with; if, however, it should be retained within the canal, it is liable to compression by muscular action, it is exposed to injury from blows and various other causes, all of which may interfere with its development, may impede its nutrition, or excite disease.

Diagnosis.—May be confounded with bubonocele, &c.

Importance of correct diagnosis.

Prognosis.

Treatment.

Alopecia - Cut off hair
Sulphur baths - Give Iod Pot - cotton
and Soap. Empirical Remedy -

DESCENT OF TESTIS INTO THE PERINEUM.

Causes.
Diagnosis.
Treatment

ATROPHY OF THE TESTIS.

Division.—Into that which arises from arrest of development, and that the consequence of wasting.

Causes—Of the first variety, imperfect descent, congenital inguinal hernia, congenital imperfection of the brain; of the second variety, inflammation, injuries of the head, impeded circulation, pressure, want of exercise, loss of nervous influence, excessive venery, and by some writers the long continued use of iodine.

Diagnosis.
Prognosis.
Treatment.

INJURIES OF THE TESTIS.

Nature of these.—Contusions and wounds.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

HYDROCELE.

Division.—Into Simple Hydrocele of the Testis; Congenital Hydrocele, and Encysted Hydrocele of the Testis; Diffused Hydrocele of the Spermatic Cord: Encysted Hydrocele of the Cord; Hydrocele of the Hernial Sac; Hydrocele of the Female.

I. HYDROCELE OF THE TESTIS.

Definition.
Varieties.—Single and double.
Characteristic of fluid.—Its nature; its quantity.
Predisposing causes.—Age and climate.
Exciting causes.—Inflammation, obstruction of circulation, inguinal herniæ, strains, or great fatigue, blows, the presence of loose bodies in the tunica vaginalis testis, and disease of the testis itself.

Symptoms.—A pyriform swelling, elastic, and fluctuating, transparent, movable but remains constant under pressure, little or no pain.

Time required for its formation.
Situation of the testis.
Diagnosis.—May be confounded with scrotal hernia, or malignant disease of the testis, or varicocele, &c.
Mode of examination.
Prognosis.

Treatment.—By external remedies and by operation; treatment by operation is either palliative or radical.

Nature of external remedies.—Cases to which they are suited.

Palliative treatment by operation—By tapping; by acupuncture.

Period required for its re-accumulation.

Radical treatment by operation.—By incision; excision; caustic; tent; seton; electro-puncture; and by injection.

Operation to be preferred.

Apparatus required.

Kinds of injection.

Dangers of operation.

Advantages of.

Complications.—Encysted hydrocele of the testis; encysted hydrocele of the cord; diffused hydrocele of the cord; oscheo-hydrocele.

II. CONGENITAL HYDROCELE OF THE TESTIS.

Definition.

Symptoms.

Diagnosis.—May be confounded with simple hydrocele, or reducible scrotal hernia.

Prognosis.

Treatment.—By truss and by injection.

Dangers of latter.

III. ENCYSTED HYDROCELE OF THE TESTIS.

Definition.

Structure of cyst.

Situation of cyst.—Either beneath that part of tun. vagin. testis covering the epididymis; between the tun. vaginal. testis and the tun. albuginea; or between the layers of the outer portion of the tunica vaginalis.

Usual situation.

Nature of fluid.

Symptoms.

Diagnosis.—May be confounded with simple hydrocele.

Prognosis.

Treatment.

Operation to be preferred.

IV. DIFFUSED HYDROCELE OF THE SPERMATIC CORD.

Nature and seat of disease.

Symptoms.

Diagnosis.—May be confounded with an omental hernia, an encysted hydrocele, or varicocele, or retained testis.

Prognosis.—Favorable.

Treatment.

Varola Smallpox a disease of an eruptive type which affects the skin about the third day with a small point - this breaking out into an eruption on 9th day
5 Stages - 1st Incubation 2nd Febrile
3 - Eruptive - 4 progress of Eruption
5 - 5th disappearance - Duration of disease is from 10 to 14 days general average about 12 days - Ophthalmia often destroys the eye by acting very insidiously

V. ENCYSTED HYDROCELE OF THE SPERMATIC CORD.

Definition.
Age most liable.
Nature and seat of cyst.
Causes.
Symptoms.
Diagnosis.—May be confounded with simple hydrocele or with hernia.
Prognosis.
Treatment.—Palliative and radical by operation; operation of Mr. Hey and others.

VI. HYDROCELE OF THE HERNIAL SAC.

Definition.
Causes.—Congenital and accidental.
Diagnosis.—May be confounded with simple hydrocele, or encysted hydrocele of the cord, or with hernia.
Treatment.

VII. HYDROCELE IN THE FEMALE.

Varieties.—Diffused and encysted hydrocle of the round ligament; hydrocele of the canal of Nuck.
Diagnosis.
Prognosis.
Treatment.

HÆMATOCELE.

Definition.
Varieties.—That of tunica vagin. testis, and that of the cord.

I. HÆMATOCELE OF THE TESTIS.

Varieties.—Where the extravasation takes place in the healthy state of the parts, where it succeeds or is combined with a hydrocele.
Causes.—A blow or strain, or a wound of some vessel of tun. vagin. testis, testis itself, or of spermatic artery.
Situation of testis.
Consequences.
Symptoms.
Diagnosis.—May be confounded with hydrocele, chronic enlargement of the testis, extravasation of blood in the cellular tissue of scrotum.
Prognosis.
Treatment.

II. HÆMATOCELE OF THE SPERMATIC CORD.

Causes.

Liability of occurrence.—Rare.

Symptoms.

Diagnosis.—May be confounded with diffused hydrocele of the cord.

Prognosis —Favorable.

Treatment.

ACUTE ORCHITIS.

Varieties.—Primary and consecutive.

Exciting causes.—Contusion, compression, great excitement of the sexual organs, metastasis from salivary glands, an inflammatory action of the urethra.

Predisposing causes.—Scrofula.

Symptoms.—Local and Constitutional, and vary with the form.

Diagnosis.—May be confounded with strangulated inguinal hernia, imperfect descent of testis, &c.

Prognosis.—Generally favorable, varies, however, with the cause.

Consequences.

Terminations.—Resolution, hardening, suppuration.

Treatment.—Leeching, venesæction, cold and warm lotions, purging, compression, &c.

II. CHRONIC ORCHITIS.

Anatomical characters.

Consequences.

Causes.—Slight contusions, venereal excesses, masturbation, urethral disease, syphilis.

Symptoms.—Usually of an indolent character.

Terminations.—Resolution, suppuration, ulceration, sinuses and formation of spermatic fistulæ, hernia testis.

Diagnosis.—May be confounded with carcinoma of testis, hæmatocele.

Prognosis.—Generally favorable.

Treatment.—Chiefly constitutional, mercury.

TUBERCULAR DISEASE OF THE TESTIS.

Seat.

Causes.

Age liable.—Rarely until after puberty.

Symptoms.—Insidious in their approach and indolent in their progress.

Diagnosis.—May be confounded with chronic orchitis, and malignant disease of the testis.

Prognosis.

Treatment.—Tonic.

CARCINOMA OF THE TESTIS.

Varieties.—Scirrhus, Encephaloid, Colloid and Melanosis.

I. SCIRRHUS OF THE TESTIS.

Frequency of disease.—Very rare.

Seat.—The tubuli seminiferi, the epididymis and sometimes the spermatic cord.

Symptoms.—An enlargement of body of the testis with great weight, and severe occasional pain, feeling tuberculated, irregular and excessively hard.

Diagnosis.—May be confounded with chronic enlargement and with encephaloid disease.

Prognosis.—Unfavorable.

Treatment.

II. ENCEPHALOID CANCER OF THE TESTIS.

Synonymes.—Pulpy testis, medullary sarcoma, soft cancer, fungoid disease, fungus hæmatodes.

Age most liable.—No age is exempt, but it is more common at the middle period of life.

Symptoms.—An enlargement, with induration of the body of the testis, which preserves its oval form and even surface; slight tenderness, dull pain, and occasionally a little effusion into the tun. vaginalis; as the gland enlarges it becomes uneven, irregular and tuberculated, also soft and elastic; pain increases; spermatic cord becomes thick and full, scrotum is swollen and varicose; glands of neighboring regions become enlarged and painful; general health suffers; ulceration ensues, and a morbid mass protrudes in the form of a bleeding fungus, and the disease makes rapid progress.

Diagnosis.—May be confounded with hydrocele, hæmatocele, cystic disease, and, in its early stage, with chronic orchitis.

Prognosis.

Treatment.

Carcinoma of the Tunica Vaginalis Testis has been observed.

Diagnosis.—May be confounded with hydrocele.

Prognosis.

Treatment.

Colloid or Gelatiniform Cancer and Melanosis of the Testis are very rarely met with.

CYSTIC SARCOMA OF THE TESTIS.

Synonymes.—Cystic Disease, Hydatid Disease, (Sir A. Cooper.)

Anatomical seat.—In the substance of the testis.

Number.—From two or three to a countless multitude.

Size.—Vary from a millet seed to that of a pigeon's egg.

Nature of the contents.

Mode of origin.—Difference of opinion. Sir A. Cooper's opinion.

Age most liable.—Middle age.

Causes.

Symptoms.

Diagnosis —May be confounded with hydrocele and encephaloid cancer.

Prognosis.—Favorable.

Treatment.

FIBROUS TRANSFORMATION OF THE TESTIS.

Anatomical seat.
Consequences.
Diagnosis.—May be confounded with malignant disease.
Prognosis.
Treatment.

OSSIFIC DEPOSITS IN THE TESTIS.

Anatomical seat.—Between the tunicæ, or in the epididymis.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

LOOSE CARTILAGES IN THE TUNICA VAGINALIS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

NERVOUS DISEASES OF THE TESTIS.

Varieties.—An exaltation of the natural sensibility of the part, or the irritable testis of most writers, and neuralgia of the spermatic nerves.

1. IRRITABLE TESTIS.

Symptoms.—No perceptible alteration in the parts, but a morbid sensibility accompanied by pain, and generally referred to one particular spot.
Causes.—Constitutional, chiefly.
Diagnosis.
Prognosis.
Treatment.

2. NEURALGIA OF THE TESTIS.

Causes.—Disease of the kidney, the passage of a calculus along the ureter, varicocele, orchitis, but often the cause is hidden.
Symptoms.—Sudden, severe, remitting pain, either of a lancinating or of a dragging or pricking character, and is commonly attended with spasmodic action of the cremaster, and sometimes with nausea and vomiting.
Diagnosis.
Prognosis.
Treatment.

HARDENING OF THE EPIDIDYMIS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS OF THE TESTIS AND EPIDIDYMIS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FISTULA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

FUNGUS OF THE TESTIS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CASTRATION.

Definition.
History of operation.
Diseases rendering it necessary.—The different forms of carcinoma; tubercular disease, cystic disease, some of the terminations of inflammation, severe neuralgia combined with varicocele.
Steps of the operation.
Dangers.

OPERATIONS REQUIRED IN IMPERFECT DESCENT OF TESTIS.

II. DISEASES OF THE SPERMATIC CORD.

VARICOCELE.

Definition.—A morbid dilatation of the spermatic veins.
Division into varicocele and circocele not employed.
Appearances on dissection.
Testis most liable.
Causes.—Anatomical structure, and accidental causes.
Effects.
Symptoms.
Time required in formation.

Diagnosis.—May be confounded with scrotal hernia, or a congenital hydrocele, &c.

Prognosis.

Treatment.—Palliative and radical; Sir A. Cooper's operation; Ricord's operation; Sir B. Brodie's by division of the vessels; Celsus by ligature; modifications of operation by ligature; Breschet's by compression or excision; Pancoast's operation. The truss.

Relative value of each.

ADIPOSE TUMORS OF THE SPERMATIC CORD.

Age most liable.—Advanced age.

Symptoms.—Loose movable tumour, of a soft doughy feel and lobular character.

Diagnosis.—May be confounded with omental hernia, or varicocele, or hydrocele.

Prognosis.

Treatment.

SPASM OF THE CREMASTER.

Causes.—Generally symptomatic.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

III. DISEASES OF THE SCROTUM.

WOUNDS OF THE SCROTUM.

Nature.

Causes.

Characteristics of contusions.

Diagnosis.

Prognosis.

Treatment.

PRURIGO SCROTI.

Definition.

Symptoms.

Age most liable.— Adult.

Causes.

Prognosis.

Treatment.

VARICOSE VEINS OF THE SCROTUM.

Age most liable.—Old age.

Treatment.

PNEUMATOCELE.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ŒDEMA SCROTI.

Synonyms.—Anasarcous hydrocele.
Causes.—Mostly symptomatic.
Symptoms.
Diagnosis.—May be confounded with hydrocele, and elephantiasis of the scrotum.
Prognosis.—Depends on cause.
Treatment.

INFLAMMATION OF THE SCROTUM.

Forms.—Mild and severe.
Symptoms of each.
Terminations of each.—Of the mild, resolution. Of the severe, mortification, and rarely effusion of lymph or pus.
Diagnosis.—May be confounded with œdema.
Treatment.

MORTIFICATION OF THE SCROTUM.

Causes.—Severe inflammation, excessive cold, extravasation of urine.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ABSCESS OF THE SCROTUM.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

ELEPHANTIASIS OF THE SCROTUM.

Definition.
Anatomical seat.
Pathology.
Causes.
Symptoms.
Size of tumor.

Complications.—Scrotal hernia and hydrocele.
Diagnosis.—May be confounded with œdema, &c.
Prognosis.
Treatment.
Dangers of operation.

HYPERTROPHY OF THE SCROTUM.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

CANCER OF THE SCROTUM.

Synonyme.—Chimney-sweeper's cancer.
Symptoms.
Causes.
Diagnosis.
Prognosis.—Unfavorable.
Treatment.

MELANOSIS OF THE SCROTUM—RARELY MET WITH.

TUMORS OF THE SCROTUM.

Varieties met with.—Adipose, fibrous, &c. &c.
Anatomical seat.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

RESTORATION OF THE SCROTUM.

Causes demanding the operation.
Mode of performance.

IMPOTENCE.

Definition.
Difference between impotence and sterility.
Sex most liable.—The male to impotency, the female to sterility.
Causes of impotency.—1. Organic. 2. Functional. 3. Moral.
Symptoms.—Depend on the cause.
Diagnosis.
Prognosis.
Treatment.

210- Amp - limited by plasma forming the modular throne, the 86 pick should be to have a very fine all creating or cannot wear a stump - Sometimes find a button this constitutes Neuralgia - cut out the end of the nerve which forms the tiny spot in amputation for conical stump - lay open to bone and strait and saw off bone - look for the oozing and not for profuse hemm - Suppu Abundant mitration will throw out plasma which become organized and produce immense pain - cut down and cut off - Always cover end of bone with pluty of flap if strain there will be conical stump if pain not done this will be compel to cut down and saw off piece of bone
Celcian open cuting down directly to bone sometimes done now where not enough to give flap - when incision made sight (dissaulty) divide in tey and cut up fascia and skin. Superficial muscles retract - divide these next to bone making a stump —
Modify the kind of operation to suit case
Cardinal rule Muscle enough to cover bone and skin enough to cover muscel to make little calculation the ant skin 4 pins take little peice of tape get the circumference of thigh suppose 9 in double tape and get diame and half it to pick more painful in large thigh cut even and can get all the vessels tied without danger of leg slip in thin legs flap - stave point to stop the adhesive plaster from sticking elevate limb apply tourniquet not tightened

Knife tenaculum ligs – retractor –
scissors and bone nipper – dressing sponge
roller bandages adhesive plaster lint in warm
water and oil silk surgeon stands out
tend – cut skin then muscle the bone muscle
the art and if necessary vein by pass the
stump – for ½ hour close the wound if on
the upper 3 of third transverse only if lower
no condyloma – work always to insertion
of muscle and fix so as not to let the bone
stick out by their contraction. Begin in
dressing the roller high up – as soon as
weight is taken off stump tells ups pass the
roller so as to keep stump down, tops
dressing little oil silk – let remain as
long as comfortable, about 3 days if not
good surgeon has middle with stump
better cut a place in silk to wipe
the lint – Flap – single and double
introduced by Louder double by French
objection single flap one or two cut
better as a general method may be
performed in every case – Performed by
surgeon may stand or in or outside fail
for out edge of tibia and fibula cal
stump – not ½ drawn but whole
get circumfer double cut directly
across bone falling margin two down
the cut between two – change position
knife transfix and shave bone then
pass knife between bone and separate
leg and muscles 3 tail retractor and
passing on tail between bones draw up
saw on tibia at first then left so as to

Cut fibula – double flap different in amputate thig. Push Knife in cut parallel to axis of bone for enough (Raw) Crest Muscle on opposite side drop as Knife to place of cutting point of Knife in other cut – divide all muscle fibers which adhere to bone – saw bone off – oval stump same only by cutting with Scalpel and then cut like circular – only in Hip joint in push all can be done by the above –

to

and Intro Transverse. And a Band of Capillaries lying between the Oxygen process and Oxygenating —

For convenience Chemists secure Hydrogen as having the smallest eq wt to represent unity consequently all the other combining wts are greater than Hydrogen — all are equivalents or exact multiples of each other. Dalton the discoverer of Atomic theory he the one who first adopted the hydrogen scale. Berzelius Scale peculiar in giving also the eq volumes — H & O going to form water are converted into one vol of Steam weigh 9 — water unites 2 ways as Hydrate and Solution the first exists the water satisfying or solid form always called water of crystallization these in crystals are do not contain water are Anhydrous salts the other do and are called hydrates

BaO_2 + HCl and HO

SO_3 — BaO and BaO to set Dentoxide BaO_2

Nitrogen — in air. Obtain it from this compound from fuling and sulphur with about 25 and Cane sugar — Phosphorus second — Chemist 1772 was well aware or with first and Azote Renovame. 4 parts in bulk of Nitrogen in atmosphere is present in animal substances combining both of Oxy is 1/2 vol then 2/1/2 vol combine with 1/2 vol of Oxy

15 wt is 36 ~~26~~ condensation is not instant
here hence di. contracting volume is equal – to 2 1/2 vol
oxygen N_2O – air is always attacked of CO_2 one part
in 2000 of CO_2 – 1/2 part in 1000 – a trace of
chlorine in air – is stand of sp. gr of air
hence is temp. sp gr of N_2O is 1. hence sp gr
~~of O is 16 and by 8~~) 1 ~~0.125~~ of nitrog is
~~14 = 0.0 gr~~ 14 or ~~0.250~~
1 14.4 : 14 :: 1. — + 14.4 : 16 :: 1 = 1.11

Hans Endometer.

Mitchell Softening is the only change supposed to occur in mucous membrane in consequence of inflammation. Chronic inflam presents brown appearance, a slate, instead of the bay flush color in acute inflammation. Mucous membrane may be affected from Emphysema or Corpuscles from blood. Intestinal or mucous glands may be enlarged and colique muscle after inflammation attack. Thus here they have a central depression which arises in consequence of being drawn of the contents. Ulcers may be confounded with perforations of stomach from over hygiene. Their ragged edges and deposit take thickening and want of color.

Simple Erythematous Inf. Stomach.
Endo gastritis is rare, generally the effect of an irritant – produced by taking large quantities of food in stomach and lying down. Symp. vomiting from sense of intended to upward burning pain – pain on pressure and on change of position after along the dorsal – dyspepsia – pain. Symptoms not decided as – appetite sensations grow like cravings or [illegible] to [illegible]

SPERMATORRHŒA.

Definition.
Causes.
Symptoms.—1st and 2d stage.
Diagnosis.
Prognosis.
Dissection.
Treatment.

Irritation — nausea and vomiting of contents and the secretions sometimes [illegible] — bowels costive unless irritant — is large the tongue should not be unfavorable sometimes red or red at edge and tip gradually becoming yellow and brown — often tongue may be entirely free from any morbid [illegible]
Sympt — Sympt — circulation at first inflammatory — and hence heat and dry skin though may have heat independent in consequence of excited [illegible] function. Skin may be dry — or moist. Some bilious symptoms make their appearance sometimes nervous symptoms present the increase of pulse respiration may be hurried — always more nervous sympathetic very permanent — duration of infancy may be prime one from to some days — metastasis is may be produced by a sympathetic irritation — Diagnosis very easy — may sometimes be a sympt — [illegible] prognosis will be according to

pends sometimes gives a great deal of trouble hence may have to tie it — the arteries in consequence of the values being torn down and it will bleed very profusely there is one set risk of tying but it gives patient better chance than if we let him more hage on, may often stop hem morhage from the bone by putting pieces of lint dipped in cold water

FOURTH DIVISION.

AMPUTATION.

Definition. always pay attention to every rule which may
Importance. save blood —
History.
Classification.

Methods.
1. Circular.
2. Flap, single and double.
3. Oval or oblique.

Time.
1. Primary.
2. Consecutive.

Place.
1. In Continuity of limb.
2. In Contiguity of limb.

Circumstance.
1. Operations of necessity.
2. Operations of choice or complaisance.

Spot.
1. Operation of necessity.
2. Operations of election.

Causes demanding the operation.
Prognosis.—Favorable circumstances.

1. Youth.
2. Habit somewhat reduced but not too weak.
3. Cheerful temperament.
4. Good general health.
5. Simple disease or accident.
6. Part at some distance from the trunk.
7. The upper extremity.
8. Circumstances of the patient.

Statistics of amputation.
Preparation of patient.
Instruments required.
Dressings.
Accidents.

Accompanying.
1. Hemorrhage.
2. Excessive pain.
3. Fainting.
4. Convulsion.

horizontally position & ligate diffusible stimulants are

bleeding if necessary

Secondary.
1. Hemorrhage.
2. Inflammation of stump.
3. Conical stump.
4. Abscess and sinus of stump.
5. Necrosis or caries of bone.
6. Cystitis.
7. Phlebitis.
8. Metastatic abscess.
9. Gangrene.
10. Hectic fever.

Healing of the stump and changes which take place in the different tissues.
Modification of the constitution.

Amputations -

Primary amp - performed as soon after the accident as possible. As soon as reaction amputate. and before fever sets in - Bordas - the reverse while suppurating - and septic present - more or fever - pray point 2d - between 7 or 8 and reaction - though fever contra in female point - Nervous 2nd performed, in opposite conditions entirely prepared - Amputation through Knee Joint - is cant get get enough soft parts - hamstring stump - healing - cervical stump more Dehiscent flap — have well circumstances, fever one man in 4 dies in all amp - don't undertake lightly - only when incapacity precludes life. Age - young dist - better than adult and adult - than old man - R. Habit - one rather ind - 3 - 4 better have some local disease has better - the farther from trunk better. C. Circumstances. once was custom to prepare for operation open bowels give some other if want to narcotize give them a good diet

accidents - Great hemorrage very serious Complication punish as quick as possible tight tourn dip sponge in ice water and hold to stump take astringents and drp a piece of lint apply on stump. 2. Excessive pain controll by opium - 3 - Fainting be very quick off. Stop hold head down and wait on recition - 4 dont go on other comrad sims - sponge face pectoral Stimulant brandy - Second Accidents 1 - hemorrhage come on late by approximation - by comp styptic - cold where hemorrhage is found out and take up large vess - If bad constit - proper sys tonics cut best. Styptic powd Rotin, Inflam - purge blood lessen cold, Always Rep muscles push down by band If abcess - as soon as have pus - open of necrosis

Secondary Hem nearly always the fault of the surgeon who close the wound too soon - Sent rozing or profuse bleeding, in first dont take of dressing apply ice and use tourniquet for 10 or 15 minute, if necessary tighten a second time, If profuse put on tourniquet open wound and tie vessel otherwise wide dont have union by 1st int -

Mf of stump - generally find septic fevers from the very commencement in second dressing the flaps are red & everted and distil pus. The id gas an acid serum, in all probability the patient will have erysip - Treat actively blood neutral mixture - &c - In hospital the scar has a tinge of blue in it, must be very cautious in abstraction of blood give diet and allay irrita by Opii &c. Dress stump with warm poultice and apply early nitric acid when ulcer often comes on - Conical stump made by from bad not light and retraction of skin the bone shuts out - Most amputate again in some cases right more to bone - Sinus result of reflux pus escape of matter - depositing at most dependent part a piece of lint - begin to cure by comp and roller if fails push up the long probe dipped in NO_5 - if this fails slit up the sinus and use stimulating applications - Necrosis - often made by cutting of edge of bone don't do it - bad surgery - marked by dull throbbing pain in middle of stump recurs about 3 week greater at night blood has Pyaemia, treat by antiphlogistics & Dr Thy remedies. If bone is dead must amputate again. Cystitis muddy urine - this often comes on after large operation treat by Gin Princeps Phlebitis bad by tongue furred fever and rigor - and often intense rigor - hard cord and effusion of plasma. delirium - require prompt treat incisions and general anst - but only remedy is a plaster around whole stump don't bleed from arm for in traumatic phlebitis it generally attacks the opened vein Metastatic abscess

Commencing with difficulty of respiration pain in side or headache dry remedy & Inch of Aconite Rub tinct & large blister - Rub up the forces as much as possible - gangrene don't amputate

Bilious Remittent - Solar - Paludal - Miasmatic remittent - is supposed not to be owing to malaria - distinguished by many broad lines - and give gamma or intermittent paroxysm terminating in 2 or 3 days often - rarely before 4 day and often 21 in winter. Fever - may be remittent or intermittent - The time is only a distinction. The symptoms - heavy of the senses - delirium - may be mild or mortally long the victim expires from hard great prostration - and tumefaction of temples & face. The head symptoms seem increasing in severe to a stupor - when appears symptoms produce death - they will be death sooner - may have congest of blood or brain or pneumonia - or may be death due to suffocation in stupor - often otherwise unknown - often see this from - throat - Sweating fever where the secretions are so abundant ~~[illegible]~~ supply. Cerebral functions also affected in severe attack - assists by immoderate effusion of serum - brings the disease - the mind may be lost - the head and bowels discharge - Convalescence hyperfine and increment life for better - will stay - Bilious remittent - pernicious shake until 1st 2nd or 3rd attack

under the red line of demarcation is formed
Septic. Comes on after 1 or 3 weeks may cause him
change locality and times back. Ref pg 208

Use usually of malarious action sometimes
endemic or epidemic – Children attacked – rarely
over 30 suffer – Mortality – very fatal –
If case in 8 days months lower at
probably very great mortality if previous
complication – death more certain – Rep.
[illegible] complications –

Local – Large areas of gangrene have
been great note & book prepared

Resolve to recognize and treat not as
a disease of skin but treat according to
the period of life – Growing dentition – disordered
menstrual action | Eczema – cracks on lumps pale around
top and redness base often found with
Rosacea at the same time – made by the
congestion of capillaries, this congestion may have
the blood out of the tissues. Carcinomas lung
sometimes is a pure disease of the skin
when this is case treated with & of water
Chloroform or cooling lotion – [illegible]
the pain in Chilblains – warm bath by [illegible]
[illegible] of Skin

Erythema Simple
inflammation of Skin – Erysipelas is a
specific infect – Erythema is not
Some confound with mild form of Erysipelas
is a blush continuing few hours or several
weeks according afterwards. the minute
in resolution by scales or, most simple
kind is made by a blow may pass to
phlegmonous. by rubbing together of parts
arising from irritant is E – Intertrigo O
Erythema in little or [illegible]

the form of E occasionally suppurating called Phlegmonous — Circumscribed and marginata — in rings or well defined margins - flying E — joint bites one Rind appearing on hands arms or Rheumatism ery - Some forms nearly always occur in persons having a constitutional taint as Syphilis - Chronic is most difficult to manage occurs generally in those who use the hands in the mechanical operations. Treat - Dry Dry - Rest generally accompanied with oedema - of limbs or anasarca - often found in children not clean use powder to absorb the acid Scarified sage &c and ammonia charcoal - Calamine - or Zinc. Carb Dup great thing to keep parts perfectly clean or if the thing is constitution Fowlers solution - Dry Intertrigo Sticking Plaster and hot water - bleeding mercurials and Iodine qr v Solutions and grease if they irritate use powders - nitrate silver from 10 to 60 gro to ℥j.

Erysipelas — An erythematous inflammation of skin subcutaneous tissue or muscle Simple Edematous Phlegmonous — Simple has little bubbles under the skin Head ache and sometimes furious delirium 3 venous Erysip - gangrene - Skin shallow skin shining look - effect skin differently in different subjects always A specific, when cured proceed by forced tongue hard pigment (no inflammation in which blood comes back So suddenly on removal of pressure as in Erysip

CONSIDERATION OF THE DIFFERENT GENERAL METHODS.

1. Circular Amputation.

History.
Object had in view.
Manner of calculating the flap.
Manner of dividing the tissues.
Reversion of the flap.
Instruments employed
Advantages of the operation.
Cases to which it is most applicable.

2. Flap Operation.

History.
Object had in view.
Manner of calculating the flap.
Manner of dividing the tissues.
Instruments employed.
Advantages of the operation.
Cases to which it is applicable.

3. Oval Operation.

History.
Object had in view.
Manner of calculating the flap.
Manner of dividing the tissues.
Instruments employed.
Advantages of the operation.
Cases to which it is considered applicable.

4. Operation in Continuity of Limb.

History.
Object had in view.
Manner of dividing the tissues.
Instruments required.
Advantages of the operation.
Disadvantages.
Cases to which it is applicable.

5. Operation in Contiguity of Limb.

History.
Object had in view.
Manner of dividing the tissues.
Instruments required.
Advantages of the operation.
Disadvantages.
Cases to which it is applicable.

SPECIAL AMPUTATIONS.

1. *Of the Upper Extremity.*

These consist of amputations of the Phalanges, metacarpo-phalangeal articulations, metacarpal bones, separately or collectively, metacarpo-carpal joints, radio-carpal articulations, of the fore-arm, elbow-joint, arm, shoulder-joint and shoulder-blade with the arm.

2. *Of the Lower Extremity.*

These consist of amputations of the Phalanges, metatarso-phalangeal articulations, metatarso-tarsal, ankle joint, leg, at the knee joint, thigh, and hip joint.

RESECTION OF BONES.

Definition.
History.
Classification—

1. Those practiced in the continuity of a bone.
2. Those practiced in the contiguity.
3. Those in which the bone is extracted entire.

Cases calling for resection.—Caries, necrosis, osteo sarcoma, spina ventosa, compound and comminuted fractures, gunshot injuries, and compound luxations.
Counter indications.
Prognosis.
Time of performance.
Instruments and apparatus.
Special application.

Chlorine - Best obtain from $NaCl$ MnO_2 & SO_3 NaO, SO_3 MnO, SO_3

or $NaCl + MnO_2 + SO_3 = Cl + NaO, SO_3 + MnO, SO_3$ - Cl 4 wts 8 - sp gr 2.5 - yellowish green Scheele 1774 - 4 vol 1 is an irrespirable gas - Compounds of chlorine generally called chlorides

Compounds with oxygen - Hypochlorous acid Chlorous acid Chloric acid & Hyperchloric acid - made by $HgO + 4Cl = HgCl + 2ClO$ - ClO yellowish green gas = 44 - 2.6 Chlorous acid (ClO_4) made by $2(RO, ClO_5) + 2SO_3 = 2(RO, SO_3) + 2ClO_4$ again $RO, ClO_5 = 2ClO_4$ and RO, ClO_7 is a yellow gas Chloric ClO_5 RO, HO and ClO_5 never been obtained pure from water & Hypochloric acid made of - from the residue of the process for obtaining chlorate of potash

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Dissanlet says in Eq. of Health that Tart ant with cure the first stage - Nitrate Silver in Sol of 1x gr to ℥j will cut short when taken internally acetate of lead and Sand - very good dry powder Cream of Chalk ℥j to ℥j - may have to blind according to the bowels sometimes

Mitchell Thomas & Dunott

Typhoid fever. Treatment - effusion - enemas warm water allowed to cool to proper temperature or milk & ice - They come generally in new buildings because of the gastric disturbance but sometimes make good effect over-balances their bad - patient often not delirious but pain in front of head very intense - rubs one cold to hands feet & throw and Inunctions - blood letting local if pain cant till 2 day - great benefit from blisters to wrists and ankles -

Great Irritability of stomach a new pathognomonic in this disease - have an early lacking appetite to lack of food use - often organ very much distended and inflamed - sensitive bit - Ice - Go slow stomachic Plumbic acid - ½ gr omit time hour - cold water ice - general opinion of Physicians to that bath is not useful - in some epidemics have this has not appeared to be required - Subpt of Bismuth may be tried - time -

Treatment of second stage. The exacerbations of gastro-intestinal are seem to be unmanageable - Inflammatory indications -

Syp Hyoscyam & Opii are the narcotics. the mucilaginous vent is very good

Dunglisons Classification of Diseases of chest.

I Involving mucous Lining	Laryngo Tracheitis Bronchitis	General Capillary
II Cells plus Areolar Tissue	Pneumonia gangrene Oedema Emphysema Cancer Melanosis Tubercle.	
III Essentially Nervous.	Spasm of the glottis. Asthma Hooping Cough Hiccough	
IV Involving Pleura	Pleuritis Hydrothorax Pyothorax Pneumothorax	
V Owing to the non-oxygenation of Arterial Into venous Blood	Apnoea	

3 stage – pulse compress and regular
sometimes only 32 or 3 very surface signs
continuance finished pulse and contracted
pulse – p Hippocratic skin loses its
yellow appearance stomach retains
nothing and have black vomit –
or coffee grounds vomit – Bowels gone
wrong and effect a black matter –
hemorrhages supervene – Hard vomiting
from surface – in consequence of
deficiency of urine in cholera
may be complicated in various forms –
brain often attack lungs – solely pass
might have in taken for cause of proximity
unfavorable in some cases
sometimes patients die as late as 20 day –
when the symptoms increased on 10 day
patient generally recovers – Mortality –
mortality 66 in 100 – 3 out 4 – general
average are in 2/3 Among children suffer
women suffer bad more over –
Among phys – two total – Red Blood and
phys lose double from fear atm
Residuals remark effect – in preservation
don't occur 2nd time very often –
even residence in hot climate great benefit
in overcoming its violence
remember in prognosis – Pathology

12.5
16
1.1.0
120
1000

great uneasiness frequent inspiration
of eye of temperature and pulse very delicate
no other disease showing both cold hot
sweat - stomach bowels power of retaining
nutritive very feeble have been vomited
pulse tight and bounding sometimes
respiration sometimes rapid some
slow pulse first ~~frequent~~ full &
slow breathing quick and hard
tongue smooth or soft or flabby
after a time red at tip and edges
then according to disease coming for a
morning or more at stomach -
Bowels usually costive - last stool
was 3 days from 56 to 68 hours -
2nd Recovery of nearly all
symptoms - pulse not hyperthermia
continues - rash moist and trunk
bowels less tympanitic after 48 hours
often terminate fatal from 10 to
days from 14

[illegible] – Both schizomycetes parasitic and saprophytic
Milk sick for [illegible] the last thing
[illegible] of Alkalies – Inf and infing
of all abnormal [illegible] – Animal poisons
when introduced into stomach cause no bad
effects generally speaking parasites only
dangerous at night – the plant therefore
must lose their poisonous properties by living
dried – the [illegible] of many visible fungi
[illegible] in their saprophytic stage not
[illegible]

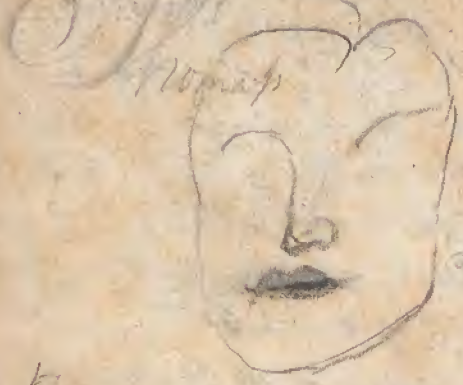
Yellow Fever – Commonly [illegible] yellow
or Black vomit part and ship fever – 4 part
[illegible] – Rush & Bellows Remittent Fever
one paroxysm – 3 stages – usually in 7
days – in fatal cases yellow skin and
black vomit 1 or 2 days before death
2 most disappear and almost well
apparently – 3 – Collapse –
1 – All paroxysm begins with
pain back of neck – hot dry skin great
gastric irritation [illegible]
[illegible] very rapid [illegible]

Median line from [illegible]
to chin and mind of [illegible]
blue spots in neck [illegible]
with 2 positions [illegible]
of trunk of 1st [illegible] [illegible]
triangle and great post triangle
apex at base of low 2 the
Base the clavicle [illegible]
mastoid process — Depressions
muscles on index with [illegible]
they form the base of triangle
middle line of [illegible] of the
sternum post triangle [illegible]
out [illegible] and post belly [illegible]
and called [illegible]
3rd triangle from ant belly
mo Hyoid by middle line
of neck post belly
to the inferior great carotid
triangle —

Thomas J. Dimott M.D.

William McGuigal

Linament, Ammon. Comp.
Pt. Lob. of Ammon.
Inf. Camphor.
Spt. Rosmarin.



Thomas J. Dunott
Thomas
Thomas J. Dunott
Mitchell

see pg 88 for preparation of mercury

C. B. Rodgers —

Nitrogen
Carbon
Hydrogen
Oxygen

20

RO SO_3

℞ Syr. Senegæ — ℥ss.
Syr. Scillæ.
M. Opii Comp. aa ℥j
Vin. Antim. ℥ss.
M. digitalis — gtt x
M. Misce et Sumpta cum Pilulis

Mitte

℞ Bals. Tolu — ℥j
Syr. Senegæ — ℥j
Succ. Liquir. — ℥j
Syr. Limonis — ℥j
M. Cochl. Magnum — ℥iij
M. Sumptus ter in Die

Spirit Thomas Dunlap
Thomas J Dunlap

Sp. NH_3CO_2

Salt

$= NH_4 + CO_2$

Ammonia

Amide a Chloride NH_2

Ammonia NH_4

Oxide (Prot) of Ammonium $NH_4 = NH_4O$

$= NH_3 + HO$

take

Amm. Hydrochlor. gr. 2

Amm. carb. gr. 2 Hydrochlor.

℞ Potass Carb. ʒj
Ol Limonis ♏ j
Acid Citric q.s. ad sat

℞ Potass Citrat ℥ij
Aqua Font ℥iij
Spir Æther Nit ʒss
Sp. Juniper ʒss
Table spoonful